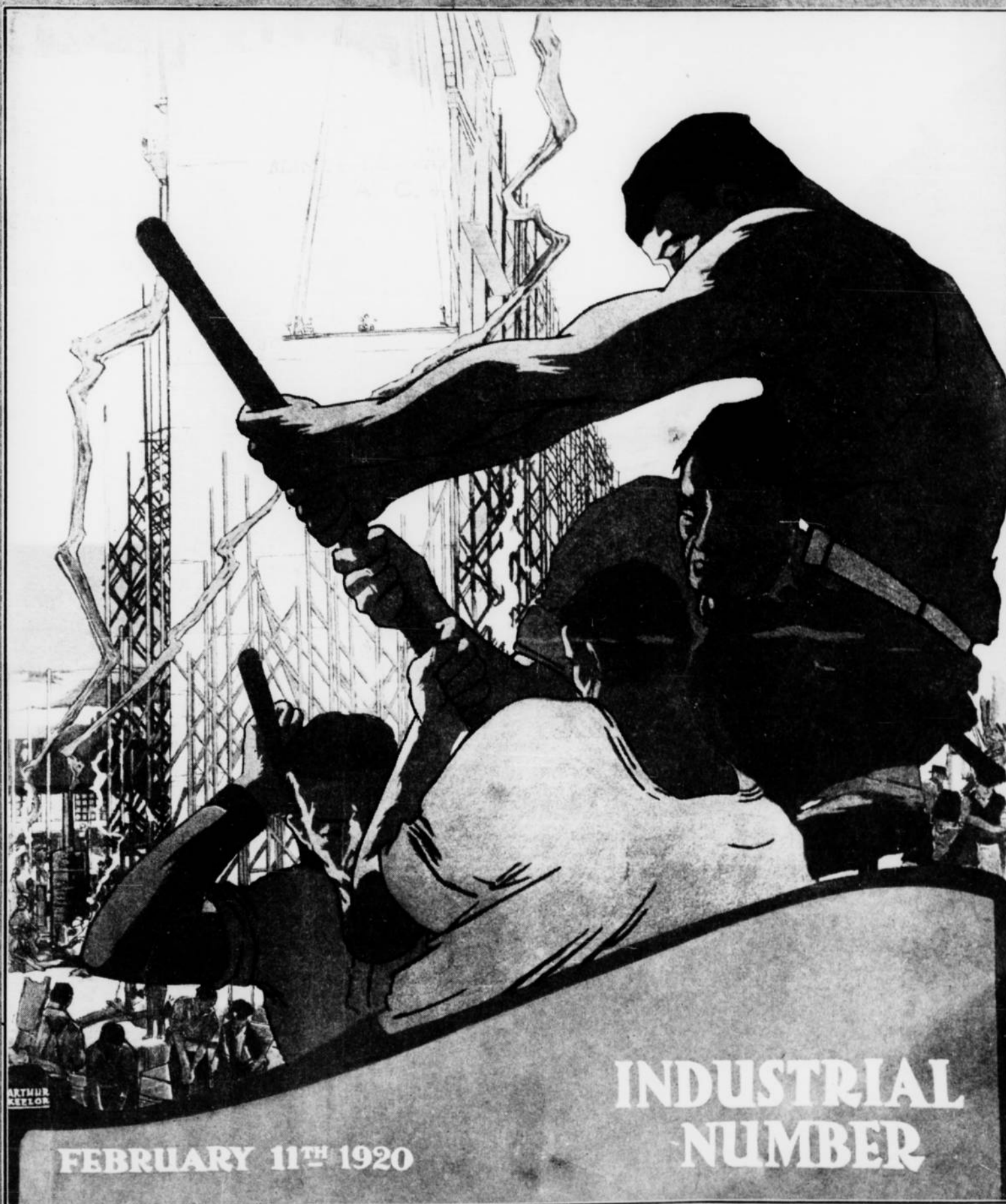


Feb 11 '20

THE GRAIN GROWERS' GUIDE



FEBRUARY 11TH 1920

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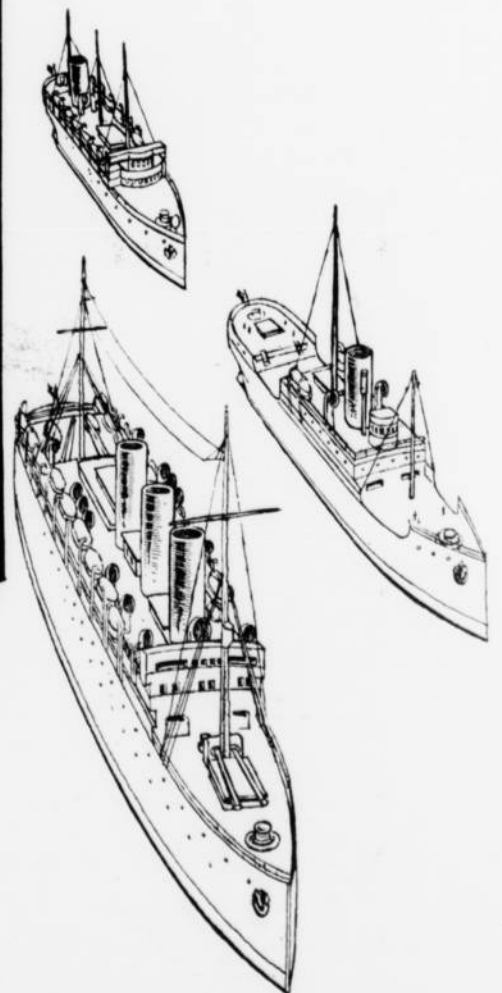
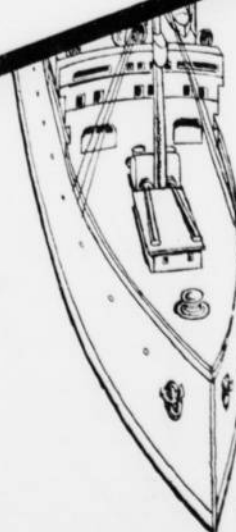
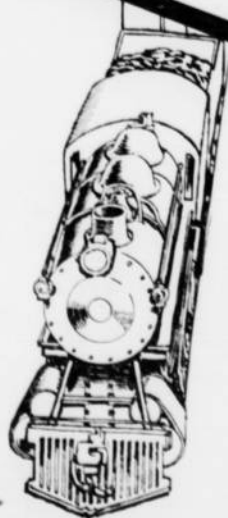
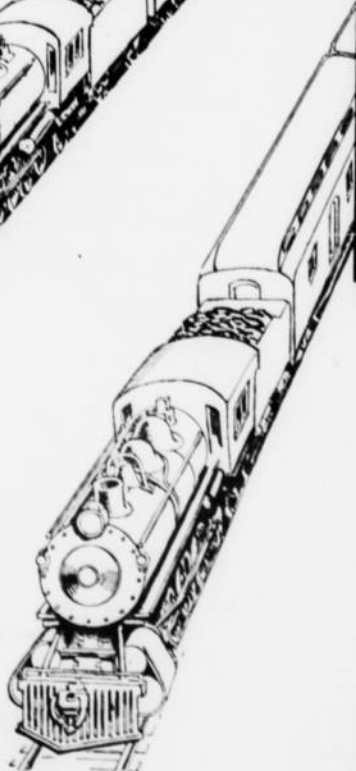
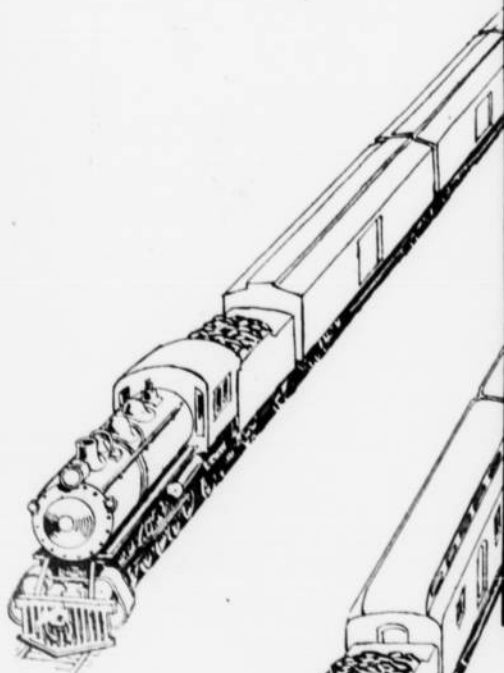
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Published under the auspices and employed as the official organ of the United Farmers of Manitoba, the Saskatchewan Grain Growers' Association and the United Farmers of Alberta.

GEORGE F. CHIPMAN, Editor and Manager.
Associate Editors: W. J. HEALY, E. D. COLQUETTE, JOHN W. WARD, P. M. ABEL and MARY P. McCALLUM.
Authorized by the Postmaster General, Ottawa, Canada, for transmission as second-class mail matter. Published weekly at 290 Vaughan St., Winnipeg, Man.
Vol. XIII. February 11, 1920. No. 6

SUBSCRIPTION and ADVERTISING

Published every Wednesday. Subscriptions in the British Empire, \$1.50 per year, except Winnipeg city, which is \$2.00 per year. Foreign and United States subscriptions \$2.50 per year. Single copies, 5 cents.

ADVERTISING RATES

Commercial Display: 50c. per agate line. Livestock Display: 30c. per agate line. Classified: 8c. per word per issue.

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THE writer of the article **World's Larder Still Empty** (page 7) is Dr. James W. Robertson, formerly Commissioner of Agriculture and Dairying for Canada.

The Cover Design of this issue is from a Victory Loan poster, by Arthur Kee-ler. It is reproduced by personal permission of Sir Henry Drayton, Dominion Minister of Finance. The subject symbolizes and emphasizes the human element in industry. It is splendidly suited to the purpose for which it is here used for behind the clash and din of industry is a great army of human souls by whose brain and brawn its forces are directed.

Industry on Peace Basis (page 8, is by Lloyd Moore, Industrial Editor of The Toronto Globe.

Industrial Development in Prairie Provinces (page 9) is by George E. Carpenter, Secretary, Prairie Provinces division C.M.A.

Tom Moore, president of the Trades and Labor Congress of Canada, is the writer of **Organized Labor and Capital** (page 10).

Canadian National Railways (page 11) is written by D. B. Hanna, president of the Canadian National Railways, and Canada's Transportation Problem (page 11) by E. W. Beatty, C.P.R. president.

From Farm to Table (page 12) is from Thomas W. Fraser, a leading member of the Press Gallery of Parliament.

John T. Stirling, Chief Inspector of Mining in Alberta, writes **Coal Mining in Alberta** (page 13).

How We Are Shod (page 15) is by Alex. Marshall, a writer in Montreal,

who is thoroughly conversant with the subject his article deals with.

The Re-establishment of the Soldier in Civil Life (page 18) is by John A. Stevenson, the well-known Ottawa journalist.

Crerar on National Policy (page 19) gives the more important points of the address delivered by the former Minister of Agriculture in the Union Government at the recent annual convention of the United Farmers of Alberta.

Clothes We Wear (page 21) is by J. B. Drylie, Secretary of the Canadian Textile Institute, Montreal.

W. A. Craik, a Toronto writer on industrial and economic subjects, is the writer of **The Printed Word** (page 23).

The Year in Steel (page 25) is written by F. W. Gray, Editor of Iron and Steel, Montreal.

Canadian Fish (page 26) is by Frederick William Wallace, Editor of The Canadian Fisherman, and Secretary of The Canadian Fisheries' Association.

J. Newell Stephenson, Editor of The Pulp and Paper Magazine, is the writer of **How Paper Is Made** (page 27).

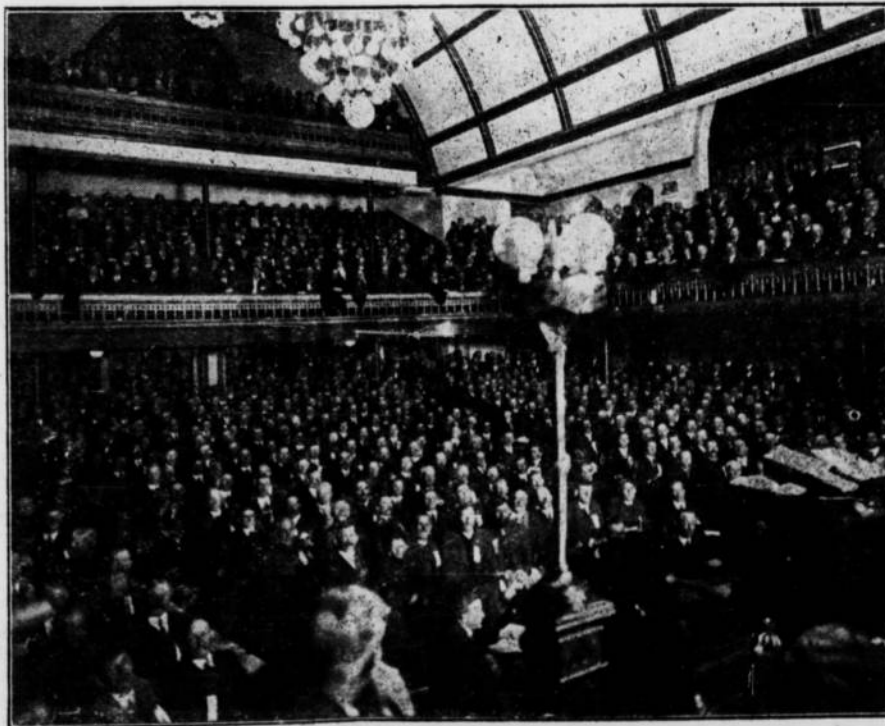
E. H. Clairmont is the writer of the article **Automobiles and Accessories** (page 30).

The Lumber Outlook (page 33) is by J. T. Ardley, a journalist with knowledge of the lumber industry.

The Milling Industry (page 35) is by F. C. Cornell, Assistant Secretary of the Canadian Millers' Committee.

The Birdman in Peace Time (page 46) is by Blight-Lieut. H. B. McKinnon.

From Daguerreotype to Kodak (page 48) is by A. D. Midland, of Toronto, 48) is by A. D. Midland, of Toronto.



The United Farmers of Alberta in Convention at Calgary, January, 1920.

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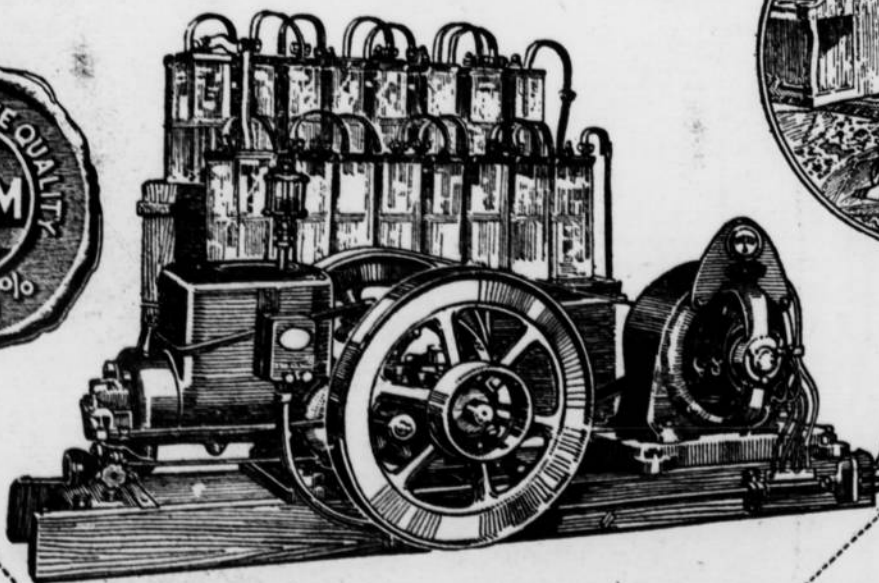
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The Brain Growers' Guide

Winnipeg, Wednesday, February 11, 1920

Our Second Industrial Number

A year ago The Guide made a new departure in publishing its first Industrial Number, which was devoted to giving its readers a bird's-eye view of many of the most important industries of Canada. The policy inaugurated by the issuing of that Industrial Number found such favor with the readers of The Guide, who purchase so very large a proportion of the products of Canadian industries which are other than agricultural, that it has been made a permanent policy; in pursuance of which this second Industrial Number is herewith presented, containing additional information about important Canadian industries. The feature articles in it are written by men who have authoritative knowledge of the industries about which they write, and all care has been taken to have the articles comprehensively informative in character, with nothing in the nature of propaganda. The purpose of these articles and the pictorial illustrations which accompany them is solely to furnish information to the farmers of Western Canada in regard to the industries dealt with.

In the first Industrial Number of The Guide a notable amount of space was naturally devoted to articles about Canadian war industries, with pictures of interiors of munitions plants, and other industrial establishments which produce war supplies. With the armistice, manufacturing of munitions and other war materials ceased, and many Canadian manufacturers found themselves confronted by the problems arising out of the necessity of re-adjusting their plants from a war to a peace basis. Immediately, however, extraordinary demands from Europe for all kinds of manufactured goods developed. Consequently, as Industrial Canada says in a recent review of the whole situation, "Canada's export trade in manufactures did not suffer as much as might have been expected; and at the same time the domestic demands for articles which could not be secured during the war revived."

The transition of Canadian industry from the war basis to peace conditions is dealt with comprehensively in the article in this issue of The Guide, by Lloyd Moore, the Industrial Editor of the Toronto Globe, who takes into account all the factors entering into the present situation, including the pressing problems of the relations between labor and capital, and discusses the financial outlook and the opportunities for the extension of foreign trade. "Canadian manufacturers," as he writes, "are thinking more and more in terms of export." His article is informative in regard to the steel developments, the production of tinplate, the automotive industry, shipbuilding activities, the expansion of textile industry, and the other main developments of Canadian manufacturers. In the article referred to, as in all the other feature articles of the present number, there is valuable information presented in clear and well-arranged form, which unquestionably will serve to increase the general knowledge of a large number of Canadian industries.

Everything that increases knowledge among the people of this country in regard to the life and work of the various classes of Canadians and the diversity of occupations by which they gain their livelihood is a service to all Canada. We Canadians cannot know too much about every part of our vast and various country, which stretches continent-wide from ocean to ocean. We cannot know too much about our Canadian fellow

citizens dwelling in all parts of Canada, and engaged in such widely different industries. No other country under the sun is so richly dowered with natural resources; and in intelligence and industry and all other human resources Canadians yield to no other people. And no other people in Canada are more heartily in favor of every possible legitimate industrial development in Canada than the Western farmers are.

The World's Need of Food

The primal need of humanity, a need which renews itself daily and must be provided for if life is to continue, is the need of food. Never before, in all the history of humanity, has there been, on so large a scale, a shortage of reserves in food supplies, to say nothing of other necessities. The world's need of food is set forth strikingly in the article written for this issue by Dr. James W. Robertson, whose distinguished services in furthering agricultural progress in Canada has made him honorably known on both sides of the Atlantic.

Canadian agriculture contributed immensely to the winning of the war, and must continue to aid in battling against the forces of famine that hover threateningly over so many devastated lands whose soil has been blood-soaked by the destructions of the war years. As Dr. Robertson points out, the Allied countries in Europe came tragically near disaster in 1917 and 1918 from want of food. The present world situation, with reserve supplies at a comparatively low ebb, is dwelt upon by Dr. Robertson in a manner which must make every thoughtful reader realize how great is the obligation to do everything that will help in increasing food production.

This is not alone a matter of basic necessity in regard to national policy for Canada; it is a duty owed to humanity, which the men who have to do with administration find confronting them urgently. Canada's greatest industry is called upon, as never before, to serve in providing for the world's need.

Organized Labor and Capital

That labor is organized not to destroy, but to construct, is the keynote of the article which Tom Moore, president of the Trades and Labor Congress of Canada, has written for the Industrial Number. The wage-earners would be the first to suffer from the effects of any retarding or destruction of the development of industry. Therefore, as Mr. Moore points out, they have every reason to "co-operate to the full in all measures leading, not only to increased production, but also to a more equitable distribution of the results of their labor and the establishing of a continually rising standard of civilization."

Democracy in successful action means wise, foreseeing leadership arising out of the ranks and securing the response which alone can make it effective. This fundamental fact is strikingly in evidence today, on a survey of world conditions, the conditions in lands where such leadership has been lacking serving to emphasize it. Nowhere is this more strikingly true than in the development of organized labor. It is a matter of world history that when the peace treaty was to be framed at Paris, representatives of organized labor were called into conference with the negotiators of the Allied coun-

tries. That agriculture was not represented at Paris may be taken as due to the fact that in most lands the men and women engaged in agriculture are not organized, as in Canada they are organizing themselves. The farmers of Western Canada will read with special interest and attention the article from Mr. Moore, who is the head of the supreme council of organized labor in this country.

The article is a thoughtful, informing discussion of the questions with which it deals. The greatest national need of Canada is that there should be the best possible understanding of the lives and the thinking, the needs and the aspirations, of each class of Canadians. Only thus can Canada's national problems be worked out to their right solution. Mr. Moore's article is a distinct and valuable contribution towards that better general understanding which is so greatly to be desired.

Civil Re-establishment Work

A complete survey of all that is being done in Canada nationally for the re-establishment of the returned soldiers in civil life is presented in the article by John A. Stevenson in this issue, which gives also tabulated statements of the gratuities and pensions paid by this country, and by other countries, together with a comparative account of the land-settlement systems in operation. All this information is of great importance. It is the duty of every Canadian citizen to have this information, so that there may be a fully-informed public opinion exercising vigilant supervision over what is being done towards discharging the debt which the nation owes in this regard.

This is a matter which concerns every Canadian, without distinction. It is Canada's foremost debt, which can never be adequately paid; no payment of it, which can be taken account of in terms of dollars and cents can be other than a merely partial recognition of what Canada owes to those who donned the khaki in its citizen army in the great world-struggle. This is a sacred obligation, and as in all matters of public policy, there is need of a constantly watchful public attention in regard to it.

Canada's Two Railway Heads

Canada's railway problem is of formidable magnitude and complexity. All the confident hopefulness and strength of our young nation are needed in grappling with this huge problem. There are two articles in this issue which afford some light upon certain aspects of it.

D. B. Hanna, the president of the Canadian National Railways, in his article, makes the confident prediction that in the years to come there will be additional public-owned mileage constructed in Western Canada that will make the total mileage of that system in the four Provinces of the West greater than its mileage in the five Provinces of the East. He goes on to say that throughout all Canada there will be as much additional new mileage constructed as there is now in operation. As to how long it will be before these predictions of Mr. Hanna's will be realized, opinions differ. But there can be only one opinion in regard to the further prediction which Mr. Hanna makes.

He is on entirely safe ground in prophesying that in the location of any railway mileage hereafter to be constructed there

will be better judgment used than was used in all cases in the past, and that there will be no duplication until it is actually needed. Mr. Hanna writes illuminatingly from his own point of view as a man of long and varied experience in railway operation and management, in regard to the future of the nationally-owned and operated railway system, which now comprises no less than 22,375 miles of track, and bespeaks for it a large share of the constantly-increasing traffic which will result from the increasing development of Canada's natural resources.

The article which President Beatty, of the C.P.R., has written for this issue is marked by that freshness of outlook and of discussion which the public have begun to recognize as characteristic of the very able young man (he is only 42) who, a little more than a year ago, succeeded to the post of high responsibility he holds as the head of the world's greatest transportation corporation. He, too, has something to say about what he terms "the somewhat reckless passion for railway construction which infected Canada in the ten years previous to the war."

Needless to remark, Mr. Beatty is a vigorous disbeliever in, and opponent of, public ownership. Special interest attaches to what he has to say about the settlement enterprises which the C.P.R. is carrying on, and about the probability, as he sees it, of the renewal of immigration from Great Britain. Optimism breathes from every sentence of his article.

Clothing and Footwear

The processes by which wool from the sheep's back, and cotton picked in the cotton-fields, are transformed into the fabrics from which our clothing is fashioned are described

in an illustrated article in this issue, which deals also with the development of the ready-made clothing industries in Canada. These industries, which had their beginnings in comparatively recent years are now turning out an annual production amounting to some \$70,000,000 in value.

The footwear industries, in like manner, do not extend back farther than a time which is easily within the recollection of many an old-timer, who can recall the visits of the peripatetic shoemaker. An exceptionally interesting article in this issue of The Guide describes the growth of the Canadian industries which now manufacture annually more than 13,000,000 pairs of boots and shoes, worth more than \$40,000,000. In both these articles there is information which is not only of notable interest, but is also new, it is safe to say, to a very large number of The Guide's readers.

Coal Mining in Western Canada

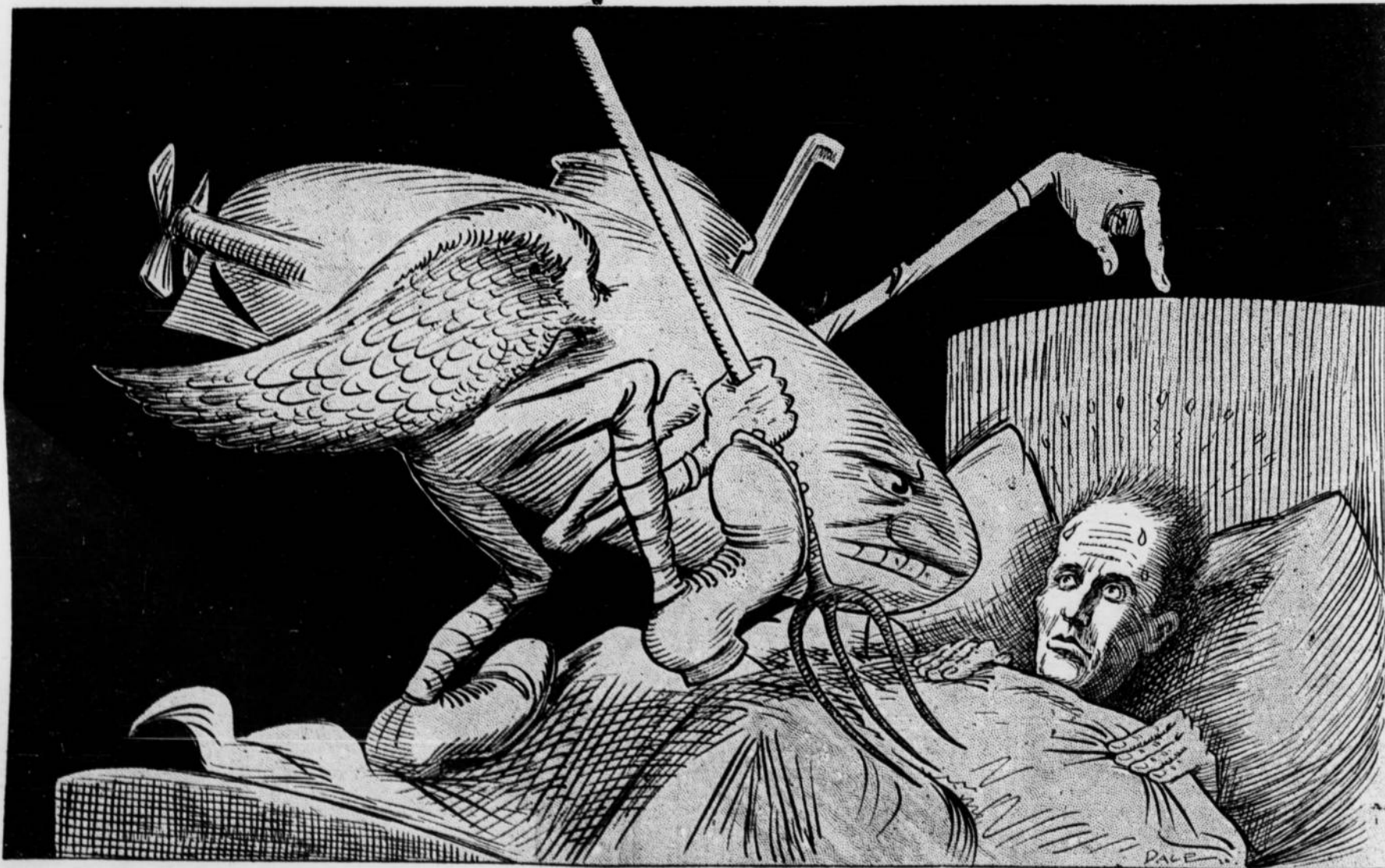
That the estimated total amount of coal available within the limits of the Province of Alberta is more than a thousand-billion tons is the statement made by John T. Stirling, Chief Inspector of Mines for Alberta. His figures are like those which the astronomers set before us. Such long processions of digits do not find their way easily into ordinary minds, such as most of us have; but we know they are to be relied on. Translated into ordinary language, Mr. Stirling's figures mean that there is enough coal underlying Alberta to supply the needs of Western Canada for thousands of years.

By way of supplement to Mr. Stirling's article, there is also in the present issue an article on the lignite deposits of Saskatchewan, which likewise are destined to prove

themselves of immense economic value in the years to come. This lignite coal has high potential value, and the experimental work carried on under the direction of the Lignite Utilization Board, for the financing of which the Dominion Government and the Governments of Saskatchewan and Manitoba are co-operating, have resulted in its being announced as a certainty that briquettes made from the lignite will be on the market by next October, at a price which gives every promise of being less than that of anthracite coal, with which these briquettes will compete, not with soft coals, or lignite, as mined. It may thus be regarded as a certainty that fuel production is destined to be an industry of great importance in Western Canada.

A Wide Industrial Outlook

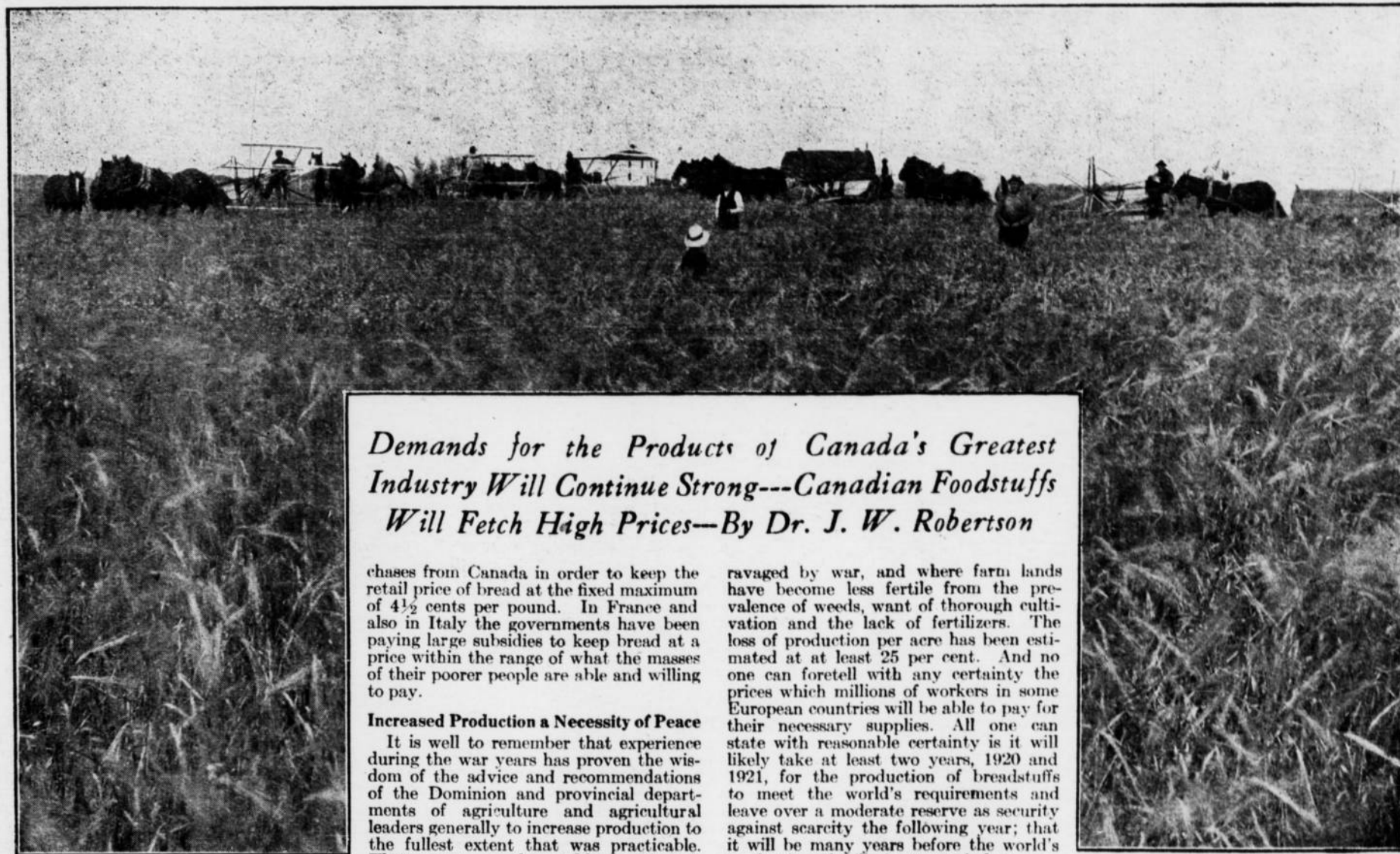
Among other articles of exceptional interest in this Industrial Number are those which deal with the manufacturing developments in the Prairie Provinces, the mineral production of Canada, the iron and steel developments of the past year, the fisheries of Canada, which furnish such a large and constantly-increasing volume of food of great variety and value for home consumption, and for export, and the article From Farm to Table, which deals with the food products prepared from wheat, and the products of the packing and milling industries. The lumber industry, the making of paper from pulp wood, which constitutes one of Canada's most valuable natural resources; the automobile and automobile accessories industries; the printing and publishing industries; and the photographic industries are also dealt with. This second Industrial Number, like the first a year ago, thus gives a wide outlook over the industrial activities of our country.



Mr. Meighen's Nightmare

In the speech which he made on January 20 to the members of the Shoe Manufacturers' Association of Canada, in convention assembled, in the city of Quebec, Hon. Arthur Meighen, Minister of the Interior, in the Union Government, said in speaking of the organized farmers: "There is one political party, now full-fledged and on the march, who would submarine our whole fiscal system."

World's Larder Still Empty



Demands for the Products of Canada's Greatest Industry Will Continue Strong---Canadian Foodstuffs Will Fetch High Prices--By Dr. J. W. Robertson

chases from Canada in order to keep the retail price of bread at the fixed maximum of 4½ cents per pound. In France and also in Italy the governments have been paying large subsidies to keep bread at a price within the range of what the masses of their poorer people are able and willing to pay.

Increased Production a Necessity of Peace

It is well to remember that experience during the war years has proven the wisdom of the advice and recommendations of the Dominion and provincial departments of agriculture and agricultural leaders generally to increase production to the fullest extent that was practicable. That course was thoroughly sound, and, when followed, has been profitable to the individual farmers, as well as advantageous to the country as a whole and to our common cause. While the conditions have happily become so changed that increased production can no longer be urged as a necessity of war, every man who has had an opportunity of learning the facts and studying the situation is convinced that increased production is a necessity of peace. It is bound to benefit the farmers and the country as a whole. It is needed in all the countries with whom we shared the frightful losses of war before our united efforts won complete victory. There is no other way to reach real stable prosperity, to remove dangerous discontent and to open the way for abiding economic and social justice to each and all.

I, at least, am unable to make any forecast of the prices per bushel, per hundred-weight or per pound, which may be obtained for next year's farm products. No one can predict with any certainty the scale or quantity of production in the countries of Europe which have been

ravaged by war, and where farm lands have become less fertile from the prevalence of weeds, want of thorough cultivation and the lack of fertilizers. The loss of production per acre has been estimated at at least 25 per cent. And no one can foretell with any certainty the prices which millions of workers in some European countries will be able to pay for their necessary supplies. All one can state with reasonable certainty is it will likely take at least two years, 1920 and 1921, for the production of breadstuffs to meet the world's requirements and leave over a moderate reserve as security against scarcity the following year; that it will be many years before the world's production of milk, butter and cheese can adequately meet the demand; and that several years must pass before the supplies of cattle and hog products can be sufficient to provide balanced nutritious rations of an invigorating sort for the millions of people who require them for the hard labor to which they must apply themselves—with bodies which, in many cases, have been weakened by the incomplete diet and other stresses of war.

Canadian Products Will Fetch Top Prices

Consequently the farmers of Canada will not make any mistake in producing as much as they can of all the staple food products. It is sure to be needed. The world's prices in the main will be determined by conditions and factors beyond our control. But our farmers may depend upon being able to obtain the highest prices which the world's markets will afford. Canadian farm products have a preference in the markets of Great Britain, because of their known superior quality; and in other European markets they are sure of an equality in price with the products of any other country. We

cannot expect more than that. Whether we produce more or less, that is the highest rate we can get. The more we produce the more money our farmers will receive, the more quickly our nation will recover from the losses of war and the more will we help to bring good cheer to a world still reeling and scarcely yet conscious of the extent of the appalling waste of four years of destruction.

Governments Directly Concerned in Marketing

It is expected that the conditions which the war has brought about will require new methods and agencies for the marketing of at least a portion of the exportable surplus of our agricultural products. The minister of agriculture has intimated that he intends to have European markets closely examined and continuously watched on behalf of the department, in order to render such aid as may be given in that way for the best marketing of Canadian farm products. As long as European countries continue to bury through government agencies it will doubtless be necessary for some government agency in Canada to be ready to sell, or to assist in making sales, in foreign markets. This

autumn the British ministry of food was negotiating with the Argentine to purchase beef for the United Kingdom, France, Italy and Belgium. But, even when private commercial transactions are resumed, the information and advisory service which competent representatives of the department of agriculture may give regarding European markets will be quite valuable. Still more valuable may be the information about our products and capacities, which they can bring to the attention of possible buyers.

Increased Production Still Required

Although the war has been won, we need to continue our saving and our production, in order that our civilization may be safe against real privation and dangerous disturbances. The high cost of living is more than an economic or political phrase. It is a grim reality which is being felt acutely by millions of

Continued on Page 22

WE all remember the campaign in Canada, during the winter of 1917-18, when everybody was appealed to to do their best, because privation from want of sufficient food was being felt and the spectre of famine was beginning to cast its shadow across the lands of our Allies. Afterwards it was said that that campaign was based on a bogey fear; that there was plenty of food everywhere, and that the people generally were misled into unnecessary activity and unnecessary self-denial. That was not the case. We came so near disaster from want of food in the Allied countries in Europe between 1917 and 1918 that we should be grateful that it did not fall on us and utterly ruin our cause. That campaign in Canada was most necessary, and it was most successful. Our farmers increased the acreage of cultivated crops by more than 6,000,000 acres. From 1913 to 1918 the increase in livestock was notably large: cattle, 51 per cent.; sheep, 42 per cent.; swine, 25 per cent., and horses 26 per cent. The leaders of the peoples of our Allies who knew of it were deeply grateful. They were much impressed by the fact that in 1916 Canada supplied 40 per cent. of the wheat from overseas. That made them expectant. With favorable weather, 1920 may give us a bumper crop equal to 1915. And although the war has been won, the question of food supplies is still very important. It is important in the United Kingdom, France and Italy, also in neutral countries, and more particularly so in the liberated countries whose peoples are seeking to work out salvation under new conditions of liberty, ordered law and self government.

Bread Subsidized in Britain

The price of bread in England is about two-thirds the price in Canada. The British government subsidizes bread, in order that the people who are the least able to pay, and the least able to understand, may not be discontented beyond measure from inability to get their daily bread. The cost to the British exchequer for subsidizing bread has been about \$250,000,000 per annum. At the present time the British taxpayer has to pay more than 75 cents per bushel on all the wheat which the British ministry of food pur-

An Estimate of the Present Values Comprising the Total Wealth of Canada.

Farm Values, Land, Buildings, etc.	\$5,078,208,763
Urban Real Property.	\$3,500,000,000
Steam and Electric Railways.	\$1,500,000,000
Mines and Forests	1,200,000,000
Household Furnishings, Carriages, etc.	800,000,000
Stocks of Raw Materials and Manufactured Goods.	745,546,310
Manufacturing Machinery	567,262,538
Stored Products	500,000,000
Imported Merchandise in Store.	250,000,000
Specie	210,000,000
Canals	125,000,000
Telegraphs and Telephones.	100,000,000
Fisheries (Capital Invested)	47,143,125
Shipping	35,000,000

Industry on a Peace Basis

CANADIAN industry, as seen from the threshold of 1920, has already made much progress in readjusting its production to a peacetime basis. The task has been a complicated one in many instances, calling for the exercise of the same skill that was requisitioned for the problems of war manufacture. Industries throughout the Dominion are well on the way towards a permanent establishment in the production of old lines and new phases of endeavor. The future is faced with confidence by the great majority of leaders of industry. They are considerably richer in experience than was the case prior to 1914; war problems successfully surmounted have given them greater confidence in their ability to attack the difficulties of readjustment. In addition the manufacturers have in greater measure learned to think in terms of quantity production. The almost universal shortage of manufactured commodities has led producers to seek foreign outlets for a wide variety of merchandise, the sale of which was limited, hitherto, to the domestic markets.

The financial position of scores of manufacturers has been materially improved. Whereas their position was comparatively precarious several years ago, reserves of capital have since been accumulated which are enabling them to withstand all the ordinary vicissitudes of commerce. The strengthened financial position is enabling extensive construction programs to be entered upon, involving the introduction of modern equipment.

The Labor Situation

The situation at the beginning of 1920 is not without its disadvantages. Labor is not nearly as efficient as in pre-war days. The shorter working hours adopted in most industries have not been accompanied by a corresponding increase in production per hour; the reverse has been the case. The output has been estimated by representative manufacturers to have been diminished by from 10 to 25 per cent per worker. This has been a natural result of higher wages and the scarcity of labor. Employers are genuinely concerned about the attitude of labor, and this apprehension has retarded the work of readjustment. High cost of construction has been another factor in inducing caution in the matter of launching upon new enterprises. All materials are at peak prices, and on the whole last year they were considerably above average prices of the 1918 building season. Expectations of a decline in costs were not fulfilled and there is nothing in the present situation to justify belief in a decline during the present calendar

Nineteen-nineteen a Year of Transition—Many Large-scale Developments—A Difficult Labor Situation—Little Ground for Pessimism—By Lloyd Moore

year. This being so, it is reasonable to suppose that there will be a more active industrial building season this year than was shown by the 1919 record.

In not a few cases expectation of heavy taxation to meet war obligations is one of the disquieting factors that are seen in the offing. These latter considerations are not as formidable, however, as is the human element.

cult to consult with heads of industries without the conversation drifting to phases of the industrial relations problem. One representative employer expressed himself as follows on labor's important part in the work of reconstruction:—

"If labor will keep its head and co-operate with employers, prosperity for all, is assured. The greatest problem

ples and regard for the sanctity of commercial obligations. The practice of taking orders for overseas customers and neglecting to fill them when conditions have changed has not been unknown during the last 12 months. Discontinuation of such methods is necessary if Canada is to retain its reputation for a high code of commercial ethics.

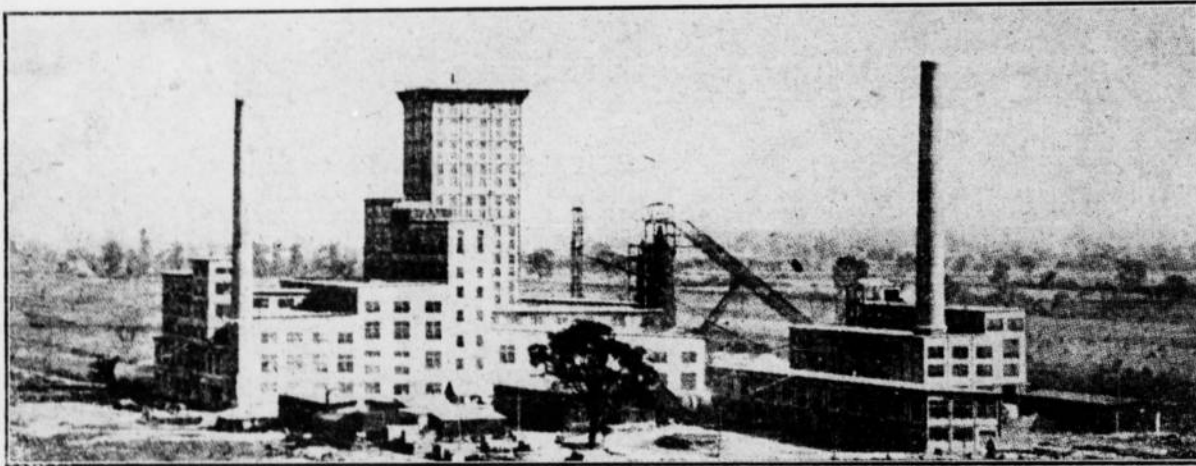
Steel Developments During the Year

In the steel industry conditions are much more promising than was the case 12 months ago. At that time the industry was practically on a war basis. The production of pig iron in Canadian furnaces had reached the high water mark of 1,195,551 short tons in 1918. It was not an easy task to turn over to the production of iron and steel commodities for commercial use. In view of this fact the estimated 1919 output of 900,000 tons is highly creditable. In the early months of the year buyers were apprehensive of price reductions and the result was that buying was limited to immediate requirements. This was true in varying degrees in the textile, leather, lumber and chemical industries. The strength of the market position was demonstrated as the year wore on, and a corresponding active market developed. During a great part of the year

some of the steel plants were operating only to the extent of 50 per cent of capacity. Nova Scotia Steel officials report that the demand for steel products for home consumption was still below normal at the turn of the year, but the buyers were then coming into the market. Financial conditions in Europe have been such that some of the business offerings is not attractive and in other cases is below the market cost. Railways were found to be disinclined to place orders. Representatives have been soliciting export business, and there are good prospects in spite of American competition. Extensive repair work was done at the Nova Scotia plant during the year, and plates of certain size have been coming to the Ontario market, thus relieving the shortage occasioned by the strike difficulties in the United States mills.

The building of the plate mill at Sydney by the Dominion Steel Corporation was one of the outstanding events of the year. This was accomplished through an arrangement between the company and the Dominion government. Ship plates from this mill will be turned out during the early part of this year, thus giving an impetus to the shipbuilding industry of eastern Canada, and rendering the country less dependent on American sources of supply. President Mark Workman states

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The Soda Ash Plant of Brunner, Mond Canada, Limited, at Amherstburg, Ont. Originally built for the manufacture of soda ash for war purposes it is now manufacturing this important product for the Canadian market.

The problem of relations between employer and employee is the gravest issue facing industrial Canada. Various methods have been taken to enlist the support of labor; profit-sharing plans, bonuses for extra production, lunch-room and recreation facilities, assistance in providing for sick benefits and disability through old age, visiting nursing service and group insurance of employees have each been worked out. Some of these have been attended with very satisfactory results. Where there is already a spirit of good-will between employers and workers, and where there is an honest effort on the part of the former to give a square deal to labor, much of debatable ground between the two parties has been covered. Monetary disbursements in various forms are valuable as secondary aids in attaining the desired results. Labor problems are uppermost in the consideration of many thoughtful employers. It is often diffi-

for young Canada is to attain maximum production in order to take advantage of the great commercial future that is being unfolded. Shorter hours are bound to be extended to manufacturing industries. A more general use of labor-saving machinery can be made to offset partially the disadvantages of the shorter working day. Higher wages have increased the general prosperity and a larger purchasing power has been a result. This has made for healthy conditions in domestic trade. There are excellent opportunities in overseas markets for Canadian goods, especially those for which we have abundant source of raw materials. A well-developed domestic market is the basis for successful competition in foreign fields."

Opportunities In Foreign Trade

There is no gainsaying the fact that Canadian manufacturers are thanking more and more in terms of export. Realization of opportunities in this direction has led to greater zeal in finding markets. The fundamental lessons in foreign trade have been learned during the past year by scores of Canadian industries. The facts that are being impressed upon them are the adaption of goods to meet the tastes and usages of foreign customers, proper packing, absolute adherence to sam-



A Big Factory for the Manufacture and Assembling of Canadian-made Motors Under Course of Construction at Oshawa, Ontario.

Industrial Development

IN THE Prairie Provinces

*Western Factories Are Demonstrating
What They Can Do—By
G. E. Carpenter*



Quaker Oats Factory,
Saskatoon.

LOOKING at Western Canada from an European point of view, it is a place where the most familiar features are grain fields, ranches, cowboys, Indians, and picturesque mounted police. Even in the eastern United States, and in eastern Canada, this rather complicated and indefinite picture survives among a surprisingly large number of people. It is not sufficiently realized that the days of the homesteader and the rancher have passed away, except insofar as their activities are confined to the northern outskirts of the three great prairie provinces.

Areas such as the prairie provinces pass through fairly uniform stages of development. First come the explorers. Pioneer homesteaders, ranchers, traders and railway builders follow. After them come the first organizers of the distributing system in the person of small traders and storekeepers.

After a certain time, exclusive attention to one form of agriculture, such as wheat growing, or to one form of stock raising, such as ranching, give way to mixed farming. Coincident with this stage, manufacturing appears, at first in a very small way, and usually as a supplement to the local distributing agencies. Then comes a second phase, which is only a development of that immediately preceding it. Mixed farming becomes more intensive and scientific, and there is a simultaneous development of manufacturing. The three western provinces of Manitoba, Saskatchewan and Alberta have passed through all these changes and are at the present time experiencing a tremendous development in manufacturing. This phase has escaped the attention of publicists, largely owing to the fact that manufacturing, as a whole, is not so picturesque as grain growing or ranching.

The scientific processes of manufacturing do not lend themselves so readily to the imagination of the descriptive writer as the large fields of wheat or the great droves of cattle. Nevertheless, the industrial progress of the western provinces has been so rapid, and has already reached such an extent, that it also appeals strongly to the imagination. The growth of the industrial cities of the West has been amazing. Where ten years ago there was nothing but a railway station house and a few houses, there is now a city or town with great factories manufacturing excellent goods. Such a transformation has not occurred once, but scores of times throughout the West.

Stimulus of the War

The war gave to western industrial development a decided stimulus in that it produced a world-wide scarcity of manufactured goods. Orders which would not have been secured under normal conditions poured into western factories, giving them the opportunity to show what they could do. They succeeded almost beyond their own expectations and demonstrated that they can make almost any sort of goods for which there is an adequate market.

Government statistics only indicate in a general way the development of western industry. The latest available figures are those published in 1917 for the year 1916, and, consequently, do not include the past three years. Moreover, the Dominion government's classification of industrial plants is made under the term "establishments." This term is used in a very broad sense in the government reports. It includes tailor shops, blacksmith shops, millinery establishments, and all kinds of small concerns. Technically speaking, of course, the government is correct. Such places are manufacturing establishments because they either make goods or carry them one or more steps farther towards completion, but they are not in popular language described as "factories," nor

industrial growth of the prairie provinces which has been doubled in the past ten years. At the present time there is as compared with all Canada:—

CANADA					
Year	Number of Establishments	Capital	Number of Employees	Salaries and Wages	Value of Products
1900	15,650	\$ 446,916,487	339,173	\$113,249,350	\$ 481,053,375
1905	15,796	846,585,023	392,530	165,100,011	718,352,603
1910	19,218	1,247,583,609	515,203	241,008,416	1,165,975,396
1915	21,306	1,994,103,272	497,170	285,889,291	1,398,137,140
1917	34,380	2,772,517,680	693,071	553,228,962	3,015,506,869

PRAIRIE PROVINCES					
Year	Number of Establishments	Capital	Number of Employees	Salaries and Wages	Value of Products
1900	429	\$ 9,229,651	6,387	\$ 2,885,312	\$ 14,892,426
1905	554	37,036,193	13,882	7,798,773	35,792,686
1910	902	84,497,837	27,555	17,214,811	78,794,567
1915	1,881	154,874,530	30,564	21,383,156	106,349,591
1917	4,082	194,475,107	42,404	36,993,503	235,132,050

It will be seen from the above that in 17 years the salaries and wages paid by manufacturing establishments in the prairie provinces have increased from \$2,885,000 to \$36,993,000. In other words the purchasing power of citizens engaged in industry has been multiplied 13 times.

In considering these figures it is well to bear in mind that they are the figures of 1916 and that owing to the diminished purchasing power of the dollar they would be greatly increased proportionately in dealing with present conditions.

Manufacturing naturally falls into

approximately \$72,000,000 invested in plants and equipment in this business for the purpose of converting the hard grain raised by western farmers into the best flour that is sold in the world. Last year these mills turned out approximately 45,000,000 barrels of flour. The milling of grain in western Canada is of great importance to farmers in the prairie provinces, for it furnishes them with mill feed for feeding their stock, and as mixed farming becomes more general this will be of still greater importance. Last year some 35,000 tons of mill feed were produced by mills in western Canada.

Another industry that falls in this class is the packing-house business. Fifteen or 20 years ago the livestock from the western plains was shipped in train loads to the Atlantic seaboard for export. Today this practice is almost a thing of the past. Livestock markets are conducted at various centres in western Canada. Large packing houses at Calgary, Edmonton, Moose Jaw, Regina, Prince Albert, St. Boniface and Winnipeg convert this livestock into meats for table use, and in place of having train loads of raw material in the shape of livestock going out of the country, train loads of chilled meats are exported to fill the wants of European countries.

At the present time many by-products from the packing houses do not find a ready market in western Canada. For instance, most of the hides taken from the animals are exported to the United States, and a large quantity of the resultant leather is imported back into Canada in the form of shoes. No doubt the time will come, and probably in the near future, when these hides will be tanned in western Canada and manufactured into shoes for the use of its people.

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The Ogilvie Milling Company's Plant at Medicine Hat.

would they be usually described as manufacturing establishments. The Canadian Manufacturers' Association, for example, which is the national association of manufacturers in this country, does not admit to membership any concern which employs fewer than five persons in its mechanical department. In considering the following figures published by the Dominion Census Office, therefore, it is necessary to bear in mind this distinction.

The following figures indicate the in-

two classes, one takes the raw materials of the district and turns them into finished goods for use in the district and for export therefrom, the other furnished implements used in obtaining the raw materials and supplies articles required by the people of the district. Both of these classes of industry are coincident with, and a complement of, the development of the raw materials of the district.

For instance, in the first class there is the milling industry in western Canada,

Organized Labor and Capital

Labor's Ever-Changing Problem--The Basic Principles Which Are Contended For--Recent Conferences--The Co-operative Movement in Industry--Joint Industrial Councils--Direct Negotiations and Legislative

THERE is nothing new under the sun," is a very old saying, and is certainly applicable so far as the subject of this article is concerned.

Labor and its right to organize, and concurrently its relationship to capital has been a problem growing in intensity from year to year as industrial development has progressed, and as organization has become more general amongst the workers. Organized capital as exemplified by the powerful industrial combines, and organized labor as exemplified by the rapidly-growing international trade unions, are the visible exponents of the two sides to the problem today in this country. Many people fail to recognize that the problems of the organized and unorganized workers are the same, and, therefore, do not grasp the importance of the expressions of organized labor, and mislead themselves with the thought that these are only the declarations of a minority of the industrial workers, and a relatively small percentage of the population of the country. It is only when a crisis is reached that they begin to realize that the organized worker has not only been representing his own views but those of the other workers as well, but, they, being unorganized, have had no means of making their demands and aspirations known. The public generally, however, now understand that labor matters are no longer a private matter between employer and employee but concern the entire community and the prosperity of a country.

An Ever-Changing Problem

This article must not be understood as an expression of the thoughts of all organized workers. Canada is a large country and the labor movement, extending as it does into every section from the Atlantic to the Pacific, and from the 49th parallel to practically the North Pole, embraces men and women of many varying degrees of thought and differing considerably in their ideas as to the methods of obtaining relief from the injustices modern society forces on them. Neither is it my desire to attempt to prescribe a cure for all the wrongs existing in the modern industrial world. I will, however, endeavor to give a general survey of the conditions as they exist, and review some of the measures already taken, which, in my estimation, are leading to a better condition than has previously obtained. I desire to impress that there can be no final solution to this question, changing as it does from day to day. Inventions which were yesterday dreams today become commonplace realities, and likewise as the aspirations of the workers are gradually achieved new ideals of a still higher civilization take their place. The object must be, therefore, to endeavor to devise means whereby the accomplishments of these things can be accelerated and as much misunderstanding and friction as is possible removed in the process.

War brought about developments and mechanical improvements in industry which, under normal conditions, might easily have taken half a century, and now that war is ended the workers are just as seriously concentrating their efforts in likewise bringing to pass in a comparatively short period improvements in their social conditions.

There is, too often, a tendency to unduly resist the betterments that workers are insisting upon, and this, undoubtedly, greatly accentuates, for the time, the difficulties of reaching a common understanding between labor and capital. There is no lack of published information as to the history of the development of the trade union movement or the growth of the industrial system, and, therefore, it is unnecessary for me to deal with this phase of the situation.

The Origin of Capital

It is advisable, however, to recall briefly how capital and labor reached their present position, and state clearly

Methods--The Duties of Employers and Workers--By Tom Moore

a few of the outstanding features of that period. First it is undisputed that capital has been obtained from the profits of industry and the greater the margin between the price at which an article was sold and the actual cost of the production of that article, the more profits were available, creating new capital for re-investment in order to further develop industry. Secondly, that this margin, known as profit, did not go to the worker whose labor created it but was garnered in by the favored few who possessed the original capital. Human nature, being what it is, it logically followed that the desire to possess increased capital led a great number of employers to practice the worst forms of exploitation of their

labor's representatives were called into conference along with the plenipotentiaries of the allied countries, and their advice sought as to the means of eliminating many of the social and economic injustices which were recognized as

being the most fruitful source of war in the past, and which resulted in incorporating the labor clauses in the peace treaty and the creation of an International Labor League to continuously deal with these questions on an international basis.

First amongst the declaration of principles enunciated in the labor clauses of the peace treaty above referred to and more fundamental than the other declarations made are the following:—

"That the well-being, physical and moral and intellectual, of industrial



Tom Moore, President, Trades and Labor Congress of Canada.

"Labor is not organized to destroy but to construct. The greatest sufferers and the first to feel the effect of any act which would in any way destroy or retard the fullest development of industry are the workers, and therefore organized labor as a whole can be depended upon to co-operate to the full in all measures that lead not only to greater production but at the same time to a more equitable distribution of the results of their labor and the establishing of a continually rising standard of civilization."

workers, keeping their wages at the lowest possible standard that they could exist upon and selling the product of the industry at the highest possible price that the market would bear. The law of supply and demand was made to apply to the fullest extent both as to labor and commodities. The accumulation of capital in this manner brought with it increased power to its possessors, and the influence they were able to exercise, forced other employers, who otherwise might have been inclined to act differently, to adopt very nearly the same standards and methods.

On the other side it is conceded that in order to protect themselves from such exploitation, workers joined together into trade unions, and the struggle began between the two organized forces for control of industry. In the earlier stages every known means was tried to prevent such organized effort amongst the workers, but ineffectively. Inspired by lofty ideals trade unions lived through the worst persecutions and continued to grow in numbers and extend their influence throughout the entire civilized world.

Two Basic Principles

Today most countries have accepted and recognized trade unions as a great moral force in the development of national life. Perhaps no better exemplification of this can be given than the fact that when the peace treaty at Paris was being framed, that organized

wage-earners is of supreme international importance."

"Labor should not be regarded as a commodity or article of commerce."

These two declarations embody the basic principles for which labor organizations have fought for generations past, and which principles they are now striving to have incorporated in our social legislation and made the basis of industrial relations.

The Mathers' Commission Report

Unfortunately, the antagonism towards trade unions has by no means died away completely in Canada, and the present attitude of some captains of industry towards organized labor is well described in the report of the Mathers' Commission on Industrial Relations, which toured Canada during the months of May and June last, investigating the causes for industrial unrest. This report classes amongst the four chief reasons of industrial unrest, "the denial to the worker of the right of collective bargaining," and "the denial of the right to organize," and "refusal to recognize trade unions." In paragraph 54, under the caption, "Denial of right to organize," the Mathers' Commission report says:—

"Employers may be divided into three classes: (1) those who deny the right of their employees to organize and who actively take steps to prevent such organization; (2) those who, while not denying that right of their employees to organize refuse to recognize organization among their employees,

and persist in dealing with them as individuals, or as committees of employees, without regard to their affiliation with organization; and (3) those who not only admit the right of their employees to organize but recognize and bargain with the organization on behalf of their employees."

It is the first two classes described who are keeping alive in the minds of the workers the memories of the past with its injustices and tragedies, and perpetuating the suspicions as to the genuine intentions of many employers of today to assist the workers to establish a new status of industry. The suspicions of the workers, founded on the experience of the past, cannot be removed by a few well-meant platitudes. Declarations of a friendly desire by employers to co-operate with organized labor must be oftener followed up by concrete action along the lines of their declarations.

The Ottawa Conference

It was a noticeable fact that at the National Industrial Conference, held in Ottawa, in September last, and convened by the federal government, at which representative employers from all parts of the Dominion and representatives of organized labor, to the number of about 75 each, met in an endeavor to formulate policies for settlement of industrial problems, that whilst considerable progress towards better understanding on both sides was made, and an agreement on many matters reached, yet when it came to answer the workers demands for a frank recognition of trade unions as a means of adjusting industrial differences, the employers absolutely refused to do so and submitted an answer which contains the following significant sentences: "Employers should not be required to recognize unions. . . ." and, "Employers should not be required to negotiate except directly with their own employees or groups of their own employees." (See page 221, National Industrial Conference Report).

It would be folly to assert that there are not many employers who have progressed both in their ideas and in their actions far beyond this official declaration made at Ottawa, and who are prepared to go still further in establishing industrial relations with their workers on a higher plane than the present ones, but it would be equally foolish to ask, or expect the workers to ignore the official declarations and actions of the organized employers and to neglect to take any steps which would strengthen their own organization, or to ask them to adopt any policy which would weaken the position they hold today, and which has been obtained only by long continued effort and at such tremendous sacrifices.

The Workers' Attitude Toward Capital

The workers of today are much more alive to their position in society than ever they were in the past. The whole question of the ownership of capital is being carefully examined by them, and it would be a fair statement to say that the attitude of labor today towards capital could be very generally summarized as one of doubt as to the correctness of the methods by which capital has been obtained and centralized in the hands of the few in the past, and one of determination to have some say as to the method of its creation and control in the future, coupled with a grim resolve that it shall no longer be created at the expense of the health and life of the workers themselves or those who are dependent upon them.

Thoughtful workers realize that modern industry is a very complicated affair; that efficient management enters into the success of industry equally with manual labor and that all improvements in their own position can only effectively be brought about as they fit themselves to successfully assume greater responsibility, and the few who blatantly cry for the immediate taking

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Canadian National Railways

CANADA'S second Transcontinental Railway System is offspring of the West. Born in a wheatfield near Gladstone, Manitoba, from there it blazed a trail east and west until now one end is at Halifax and Sydney, N.S. and the other at Vancouver and Prince Rupert. The lamentation of the western farmer calling for railway transportation was the first sound that reached its ears. The call is still being kept up and, while eastern economists are worrying about duplication of lines and head office locations, great sections of the finest wheat lands in the world are still calling for railways.

Probably the eastern economists do not know that there are extensive additions to the railway mileage actually under construction in western Canada both by the Canadian Pacific and Canadian National Railways, and probably they do not know that the National Railways management have requests for extensions in western Canada which, if built—and I believe the larger part of them will in time be built—will make the National Railway mileage in the four western provinces greater than its mileage in the five eastern provinces.

Therefore let no one imagine that railway construction is over in Canada—on the contrary I am convinced that in the years to come we are going to have as much additional new mileage constructed as now in operation. There will be, of course, greater judgment displayed in the building of these lines; duplication will not be permitted until warranted by traffic conditions and in as much as there will only be two companies to compete for the new territory a sane policy will obtain and the interest of the country will thereby be protected.

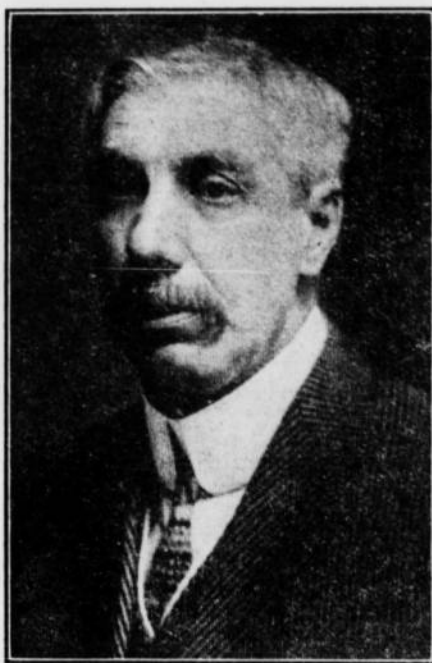
I am glad of this opportunity of ex-

Government Ownership as a Solution of Canada's Railway Problem---By D. B. Hanna

plaining to the Grain Growers the advantages that I see in the solution of the railway problem which has been adopted by the government of Canada.

Competitive Service Assured

In the first place competitive service is assured. Unless the western farmer has a shorter memory than I give him credit for, he does not wish to re-establish the conditions which existed in the West prior to 1896. The railway competition will not only be in routes, but as between public and private ownership. The two principal competing systems (which will together operate 85 per cent of the total railway mileage of Canada) will both be of exceptional strength—both extending from coast to coast, and both serving practically every important community. The day of the small line has gone. In United States it is proposed to make consolidation of the lines into large systems compulsory.



D. B. Hanna, President, Canadian National Railways.

Canada has enjoyed very low freight rates in the last ten years. It is held that "it is economical management of the successful roads that keeps the American freight rate as low as it is"; Canadian freight rates on the average in recent years have been below those in United States. It pays to keep the railroads successful, as they are only able to give a good service when they are getting sufficient revenue to keep their transportation plant in up-to-date condition. Now that expenses have overtaken the efficiency methods by which Canadian railways were generally able up

to 1917 to offset the rising cost of operation, there should be no hesitancy in re-establishing a proper relationship between earnings and expenses. The value of the service the railways perform should be regarded in the light of present day prices.

Old and New Rates Compared
Consider a car load of grain contain-

ing 1,000 bushels. Here is shown the variation in value compared with the freight charge for moving it from Winnipeg to Port Arthur:—

	1908	1909
Value of 1,000 bushels of wheat	\$810.00	\$850.00
Freight charges, Wpg. to Pt. Arthur	\$60.00	\$60.00
Per cent. of freight charge to value	7.41	7.05

	1911	1913	1915	1917	1918	1919
\$640.00	\$670.00	\$910.00	\$1,940.00	\$2,175.00	\$2,080.00	
60.00	60.00	60.00	60.00	84.00	84.00	
9.38	8.96	6.59	3.09	3.86	4.04	

This shows that while freight charges advanced 40 per cent the freight charge under the new rate is a much smaller percentage of the value now than before the war. This is the case on the average for all commodities and the increase in the freight charge has had such a small effect on the price of the commodity that railway freight charges may be said to have had practically no part in raising the cost of living.

The main lines having been built and being capable of handling considerably more traffic, the desirability of adding branches to develop further main line traffic is apparent, but even government-owned lines balk at building branch railways to secure traffic which can only be handled at a loss. In fact red figures at the end of a fiscal year are enough to discourage any management.

The wage increases and rising cost of all railway materials and supplies have simply put operating expenses up to such a height that nothing but a substantial increase in freight rates will bring about any modification of the situation, as no further economies generally speaking can be put into effect until there is greater density of traffic.

The question is whether the shipper and consignee should pay the entire cost of moving the freight, or whether a part of this should, on account of inadequate

Continued on Page 73.

Canada's Transportation Problem

TRANSPORTATION plays so large a part in the fabric of modern civilization that the people of Western Canada cannot be blamed for devoting much of their attention to railway questions, particularly as in many districts the railway has been the chief means of communication, and in most cases under present conditions is essential to the marketing of farm produce. The railways cannot escape from the limelight. There is, however, a danger in thinking too much about any one thing and forgetting the many other things equally worthy of attention. A nation or a province may be stirred to the depths by its railroad problems and forget all about the good roads movement, although the progress in the automobile industry, has made the demand for extensions to the road systems of Canada a crying necessity. In Eastern Canada we have no less than four railway routes between Montreal and Toronto, but not one single consecutive highway—and similarly in the prairie provinces and in British Columbia. Some of the enthusiasm and money poured out in government guarantees to railways might well have been diverted to the construction of highways requiring less expenditure and just as necessary to the community.

Why Railways are Criticized

The greater attention and criticism devoted to the railways as compared to the highways is due, no doubt, to the fact that the railway traveller has to pay out cash for each journey, whereas the payment for the highways is in the indirect and less noticeable form of taxes. We are apt to delegate our interest in the expenditure of taxes to our political and municipal representatives.

The mention of tax-expenditure raises a question, which, to my mind, is of vital importance at the present moment. The country is involved in such heavy obligations and there are so many things rightly demanding a share of the taxpayer's money that any diver-

More Good Highways Needed---The C.P.R. and Colonization---Immigration will be Renewed---By E. W. Beatty

sion of public funds from the pressing needs of the community deserves to be severely scrutinized. In the modern state, the provision of funds for the education of the masses is rightly considered the prerogative of the government (in Canada, the provincial government), and, owing to the large element of foreign-born population in Western

mind, of the highest importance that this profession should attract the best brains and most progressive characters discovered in our schools and universities. The teachers have in their hands the moulding of the future Canadian, and yet, owing to the unsatisfactory remuneration offered to them, it is becoming difficult to find enough of the



E. W. Beatty, President, Canadian Pacific Railway Company.

Canada, the necessity of generous expenditures on educational facilities tending to spread the opportunities for assimilation of the ideals of Canadian citizenship should take precedence of everything else in the preparation of the provincial budgets. The teaching profession throughout Canada is notoriously underpaid, whereas it is, to my

kind required. The lack of interest so often shown by the man in the street as to government measures and activities, is largely due to the fact that he sees so much money spent on matters which do not apparently intimately concern him. Every parent, however, is interested in the education of his or her children—knowing how

much education means to the child's future career.

Even in the case of railways, the interest of the average man extends only to railway service so far as it affects his own business or comfort. He does not always realize how large a part the railways have played in the development of Canada as a whole, and how great an impetus they give to national progress and prosperity.

The prairie farmer may think the tourist traffic to the resorts in the Canadian Rockies concerns him little. As a matter of fact, it concerns him a great deal. A large percentage of the revenue of the summer tourist goes into farm produce in the shape of food for not only the tourist himself but also for those who cater to his comfort and transportation. The visit of 50,000 visitors to the Canadian Rockies from the United States represents a revenue to Canada of at least \$10,000,000, in which the farmer is the chief beneficiary. As the season of 1919 showed, the capacity of the Canadian railways for such tourist traffic is limited, and an encouragement of automobile travel into and through Canada by means of a vigorous good roads movement is greatly to be desired.

The Railway War Board

As everyone knows, the exigencies of war traffic placed an enormous strain upon the railways of this continent. The somewhat reckless passion for railway construction which infected Canada in the ten years previous to the war, resulted in a good deal of wasteful competition which could be carried on only at the cost of the Canadian soldier overseas who was fighting our battles. The Canadian Railway War Board was, therefore, formed to eliminate waste and to ensure the most rapid and effective transport of supplies for overseas, and later for the most rapid demobilization of the returning Canadian army. The work of the Railway War Board, a purely voluntary effort, has proved so effective that it has been

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From Farm to Table

IN some of the West India Islands, the proprietors of the land are almost "self contained"; that is, they produce on their own estates almost everything consumed on their tables. Canadians who have visited the Island of Dominica will recall the hospitality of Hon. J. Cox Fillan, of "Wall House" estate, a well known West Indian, who used to make regular trips to Canada. He delighted in entertaining Canadians, and in telling them that everything placed before them, with the exception of the flour from which the bread was baked, was produced on his own estate.

While the luxuriant growth of the tropics is denied us in Canada, it is a fact, nevertheless, that nearly all the necessities of the average table come from the Canadian farm. Every table is served with products of the food factories, which draw their raw material from the fields of the West or the East. It may be of interest to readers of *The Grain Growers' Guide*, who are themselves the source of supply for the production of much of this raw material, to trace briefly the development of some of the food factories of Canada, as shown in the statistical returns. Such returns are in themselves, of course, somewhat dry reading, unless we invest them with a little imagination.

Raw Material from the Farm

There is sometimes a suspicion that the fraternal feelings existing between the farmer and the manufacturer in Canada are not of the warmest. I believe I can recall stray paragraphs from time to time in *The Guide* intimating that the fault of the manufacturer was like that of the Dutch in the old couplet, which declared that:—

"In matters of commerce, the fault of the Dutch
Was giving too little, and taking too much."

However that may be, their interdependence on each other is close. Our biggest single industry in Canada, by far, is the manufacture of food products; and no less than 20 of the 27 groups of food products enumerated in the list of which the Dominion Department of Statistics takes cognizance, draw their raw material, in whole or in part, from the farms of Canada. The census of manufactures of Canada for the year 1916 (which is the

Preparation of Food Products Canada's Biggest Single Manufacturing Industry---Many Raw Materials From Canadian Farms-- By Thomas W. Fraser

in Canada flour and grist mill products are in the lead, slaughtering and packing assuming second place.

Food Products from Wheat

In those Canadian food products, of which wheat is, in whole or in part, the raw material, the latest complete figures available are those for the year 1917. The articles included are the following: bread, biscuits and confectionery; flour and grist mill products; prepared foods; ice cream cones; macaroni and vermicelli. We may deal with them separately.

Bread, Biscuits and Confectionery—The number of establishments manufacturing such products in 1917 was 2,026; capital employed, \$35,538,738; employees, 18,327; wages paid, \$13,104,365; cost of materials, \$44,201,470; value of products, \$77,223,581.

Flour and Grist-mill Products—Number of establishments, 1,098; capital employed, \$72,573,982; employees, 6,914; wages paid, \$6,292,797; cost of materials, \$183,586,936; value of products, \$224,191,735.

Prepared Foods—Number of establishments, 8; capital employed, \$457,267; employees, 144; wages paid, \$80,038; cost of materials, \$140,795; value of products, \$443,022.

Ice Cream Cones—Establishments, 7; capital, \$149,138; employees, 56; wages,

\$47,073; cost of materials, \$112,600; value of products, \$269,868.

Macaroni and Vermicelli—Establishments, 9; capital, \$704,380; employees, 104; wages, \$101,689; cost of materials, \$545,263; value of product, \$1,006,750.

A recapitulation of the statistics for the wheat group of industries gives the following results: Establishments, 3,161; capital, \$109,799,493; employees, 25,693; wages, \$19,746,900; cost of materials, \$229,110,468; value of products, \$304,008,890.

It is interesting to note the progress that has been made in the different industries in recent years; and for this purpose we may take the postal census of manufactures for the year 1910, and compare the figures there with those for the year 1917. In some instances there is no basis of comparison at that earlier date; the manufacture of prepared foods, ice-cream cones, and macaroni and vermicelli, for example, was apparently not engaged in in 1910. In the case of those articles, therefore, we can take the year 1915. It will be seen that there has been a pretty rapid expansion even in two years. The comparative figures are as follows:—

Bread, Biscuits and Confectionery			
	1910	1917	
Establishments	323	2,026	
Capital	\$16,756,289	\$35,538,738	
Wages	4,660,221	13,104,365	
Cost of materials	13,185,126	44,201,470	
Value of products	25,566,691	77,223,581	

Flour and Grist Mill Products

	1910	1917
Establishments	1,141	1,098
Capital	\$42,905,689	\$72,573,982
Wages	3,756,275	6,292,797
Cost of materials	52,227,520	183,586,936
Value of products	82,494,826	224,191,735

Prepared foods and ice cream cones, two of the wheat products enumerated in the 1917 returns, do not figure even as late as 1915. Apparently, the long line of possible by-products of wheat are only beginning to be exploited. Nor is there any mention of macaroni and vermicelli in the returns for 1910. Comparisons between 1915 and 1917, however, show that those industries are making a gratifying increase. Capital employed, wages and cost of materials have all more than doubled, while the value of the products increased nearly three times in two years.

It will be noticed that the number of flour and grist mills showed a decrease during the seven years, although all the other statistics show a very pronounced advance. Experience in the milling of cereal products has shown that greater economy in manufacture may be secured in a small number of large mills than in a large number of small mills; and, with the passing of the time—perhaps "the good old time," when our ancestors carried "the grist" home on horse-back before them—has come the day when they buy back their own raw material turned into flour by processes which have been completely revolutionized in the past 30 or 40 years. A feature of the modern milling processes is a decrease in the number of wage-earners employed, as the result of improved process in handling the grain and products. The historic millstones have given place to the swiftly moving rolls; a greater degree of separation between the berry and the husk has been obtained; while cleaning processes of the grain previous to grinding have also been vastly improved.

I am tempted to digress into the field of the pathologist. There are those who maintain that this refinement of the process of flour making has been at least partly responsible for many diseases of the alimentary tract to which modern flesh is heir; and I have even heard an old philosopher attempt to link-up the passing of oatmeal porridge and the substitution of more or less predigested breakfast foods with the advent of many new crimes and misdemeanors, which were foreign to our oatmeal-fed ancestors. However this may be, we possibly have to pay, here as



latest published, although the data for this article has been drawn from later and unpublished statistics) shows that one-quarter of the total value of our manufactured products is contributed by the food-producing industries, of which the chief are flour and grist mills, slaughtering and meat-packing establishments, butter and cheese factories, manufactures of bread, biscuits and confectionery, and sugar refineries. The textile groups stand second in importance, whilst timber and lumber manufacturing, and the iron and steel groups, follow in order. The two first mentioned, while not coming within the scope of this article, also draw their raw materials in some degree from the farm properties of Canada.

In the United States the position is somewhat different, manufacturing having undergone greater development. In the matter of food products also, their position differs from ours. There, slaughtering and meat packing may be taken as representing the greatest value in investment and production among the food industries;



Scenes at the Farm End of Canada's Food Manufacturing Industry.

elsewhere, in some fashion for the advancement of science. "Oatmeal and the shorter catechism" were long closely allied; today we seem to hear less of both of them than formerly. However, it is probably from the statistician, rather than the professor, at the breakfast table that readers of *The Guide* desire to hear.

Slaughtering and Meat Packing

Next in importance among the groups of food products which the Canadian farm supplies to the Canadian table is what is denominated as "Slaughtering and Meat Packing." The latest figures available in this class are those for the statistical year 1918. Here also there has been a decrease in the number of establishments since 1910, although the capital, value of products, and all other statistics show a very large increase.

	1910	1918
Establishments	70	66
Capital	\$13,746,271	\$74,909,950
Wages	2,406,571	9,983,947
Cost of materials	34,631,818	140,331,249
Value of products	41,208,796	185,468,146

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Coal Mining in Alberta

Immense Deposits Underlie Prairies---Capable of Supplying Western Canada for Thousands of Years---By John T. Stirling, Chief Inspector of Mines for Alberta

THE amount of coal produced in Alberta during 1918 was 6,148,620 tons while the estimated output for the year 1919 was in the neighborhood of 5,000,000 tons. Last year's production would have been much larger but for the fact that the production was considerably interfered with owing to labor troubles and transportation difficulties during the severe weather in the months of October and November. The amounts of domestic coal produced during the months of October and November were 404,077 and 454,217 tons, respectively, the estimated production for the month of December being in the neighborhood of 500,000 tons. The amount of bituminous coal produced during the month of October was 281,300 tons and during November 285,530 tons while the estimated production for the month of December will be in the neighborhood of 300,000 tons. If this production was maintained steadily throughout each month of the year the total yearly production would be in the neighborhood of 10,000,000 tons, which would more than take care of the present requirements of the provinces of Manitoba, Saskatchewan and Alberta.

A Thousand Billion Tons

In order to fully realize the extent and value to Canada of the immense mineral resources treasured up in the coal measures in Alberta, it is necessary to study a geological map of western Canada, which will give an idea of the vast territory under-laid by the coal measures. This question is vital, not only to the province of Alberta, but to the whole of the Dominion of Canada as well as the empire, especially at a time when the world's fuel supplies are being submitted to a very careful review. It is estimated that the total amount of coal available in the province is in the neighborhood of 1,059,975,000,000 tons.

Coal mining in the province of Alberta practically dates from the completion of the Canadian Pacific Railway but it is only within recent years that any considerable production has been maintained. The production during the last 15 years has been as follows:—

Year	Tons
1905	811,228
1906	1,385,000
1907	1,834,745
1908	1,845,000
1909	2,174,329
1910	3,036,757
1911	1,694,564
1912	3,446,394
1913	4,306,346
1914	3,821,739
1915	3,434,891
1916	4,648,604
1917	4,863,414
1918	6,148,620
1919	(estimated) 5,000,000

The Alberta Seams

Coal mining is carried on under various conditions in the province, the

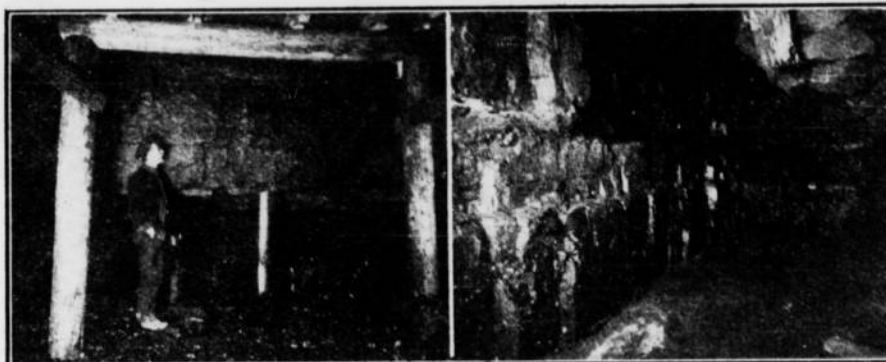
seams varying from horizontal to perpendicular. In the Lethbridge, Drumheller and Edmonton fields the seams are practically horizontal with slight local dips. In the Crow's Nest Pass and Canmore districts, also in the mountain sections west of Edmonton the inclination varies from 15 degrees to vertical.

The Drumheller coal field is located on the banks of the Red Deer river about 85 miles north-east of Calgary,

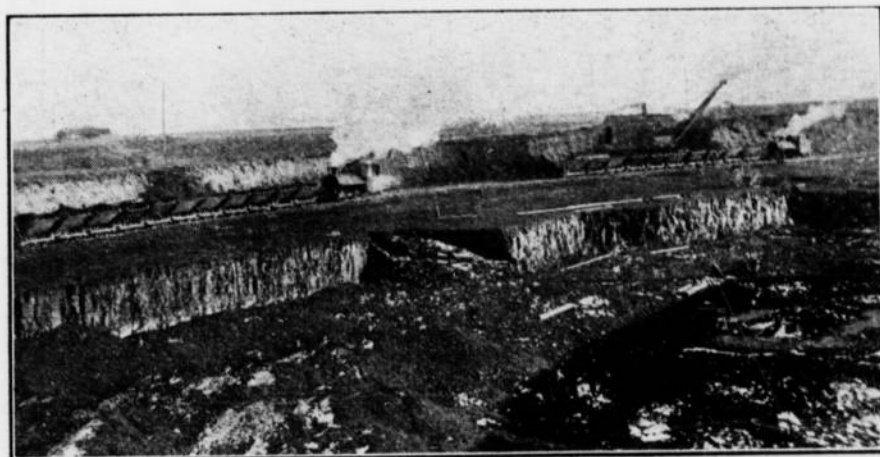
of domestic coal and also give good results as steam producing fuel. The No. 2 seam is being operated to a very large extent especially in the vicinity of the town of Drumheller. The No. 3 seam is operated more particularly near Rosedale and Wayne.

A Typical Mine

The workings of a typical mine operated in the Drumheller district are in the No. 3 seam, which has a thick-



Underground in a Nine-foot Seam.



In this Mine, at Tofield, Alberta, the Surface Earth has been Removed, leaving the Coal Seam Bare.

along the Saskatoon-Calgary branch of the Canadian National Railway. The approximate elevation of the valley is 2,300 feet above sea level. The valley ranges in width from 1,000 feet to over a mile, rising on both sides on a steep slope to the prairie level which is about 250 feet above the valley. The strata overlying the upper coal seams are exposed along the valley and can be traced for miles, there being no signs of folding or faulting, the measures which belong to the Edmonton series lying practically horizontal. The coal beds are generally assigned to the Laramie formation. While there are four different seams of coal known to exist, only two of these are being worked at present, namely Nos. 2 and 3. Both seams produce an excellent quality

ness of 9 feet $\frac{1}{2}$ inch, the following being a section from roof to pavement:

Coal	2 ft. 2 in.
Clay	$\frac{1}{2}$ in.
Coal	1 ft. 10 in.
Clay and coal bone	1 ft. 4 in.
Coal	3 ft. 8 in.

Total 9 ft. $\frac{1}{2}$ in.
Total coal 7 ft. 8 in.

with a hard sandstone roof and pavement. The strata is practically level the cover varying from 38 feet to 350 feet in thickness. The mine is entered by means of two shafts, the hoisting shaft being 18 feet long and 10 feet 6 inches wide by 38 feet deep, lined with concrete from top to bottom, the other shaft being used for ventilation pur-



Undercutting by Machinery.

poses. The hoisting shaft is divided into three compartments, two being used for hoisting coal and the third equipped with a stairway by which workmen enter and leave the mine. The main entry is driven in a north-westerly direction from the foot of the shaft, this entry being driven 12 feet wide and 8 feet high for a distance of 200 feet from the shaft, after which it is driven 8 feet wide and 8 feet high. For 200 feet from the shaft bottom there are double tracks on which the loaded cars are stored before taken off on the south side of the cage.

Method of Working

The method of working is room and pillar. Two entries are driven with a pillar of coal 30 feet wide between them and from these entries similar entries are driven to the north-east from which the rooms are opened out. The rooms are driven 20 feet wide with pillars between rooms 30 feet wide. Each place is mined in the centre by an electric coal-cutting machine of are-wall type, the mining being done in the bone and clay. The are-wall machine is mounted on a truck which is propelled along the mine tracks by electric power and can be raised or lowered by jacks to suit the height of the mining in each place. The machine, in the mining, cuts out the clay and bone to a depth of 6 feet over the whole width of the place, after which the coal is shot down by means of powder which is placed in holes drilled for this purpose. The coal is then loaded into mine cars by the miners and hauled by horses to the shaft where cars are placed on self-dumping cages and hoisted to the surface.

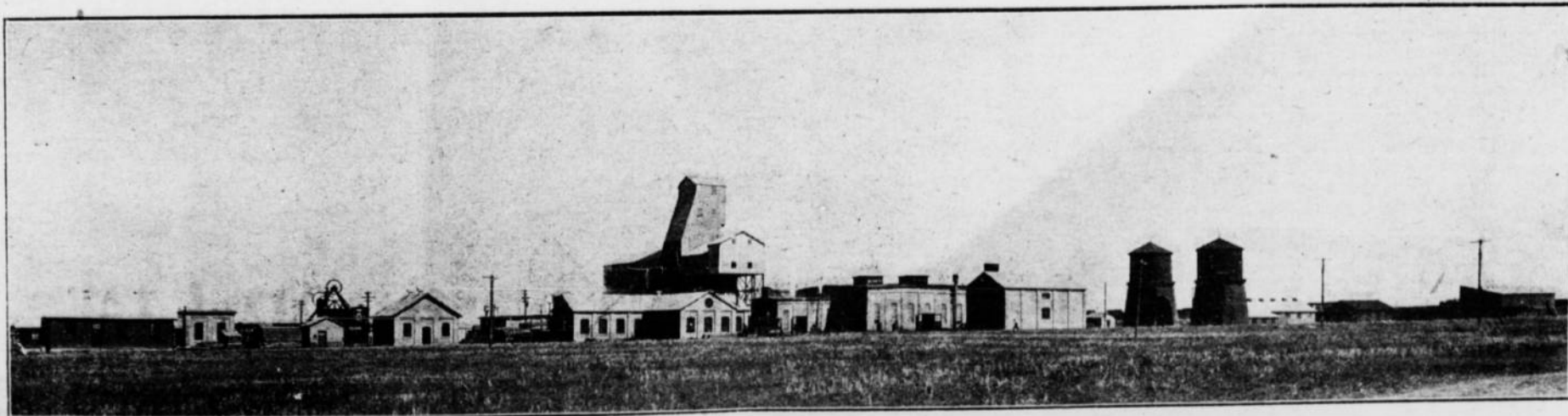
The cages work in balance and when they reach the tippie the coal is automatically dumped out of the car on to a bar screen delivering to a weigh basket where the lump coal is weighed after which it is delivered on to a Marcus horizontal screen 60 feet long by 5 feet wide where the rock is picked out before the coal is placed in the railroad cars for shipment. The Marcus screen is equipped with perforated plates for grading three sizes of coal. The tippie and headframes are of steel construction, the sides being covered by corrugated iron.

Saskatchewan's Lignite Deposits

By John W. Ward.

An important coal area and one which promises to become of immense value

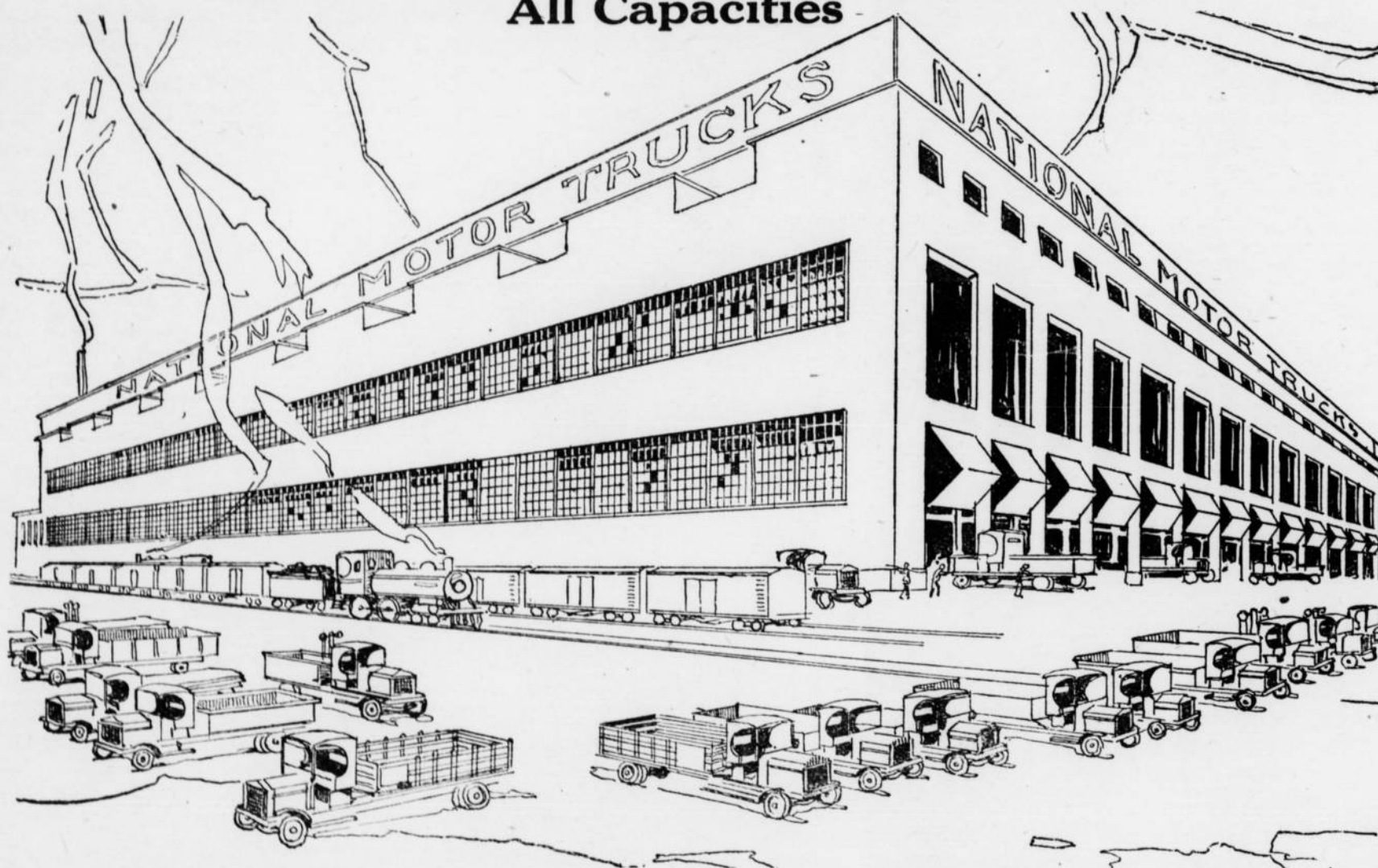
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A C.P.R. Mine at Lethbridge, Alberta.

NATIONAL MOTOR TRUCKS

All Capacities



A Canadian Industrial Achievement

The National Steel Car Corporation Limited is a National institution rendering to Canada a service of vital importance.

National Motor Trucks are of greater interest to Canadians today than ever before. National Motor Trucks are built in Canada by a purely Canadian company, and fully 66 per cent of the units required in the manufacture of Nationals are made in this country. That represents the present total available supply. The company is now planning to produce in its own plant the units it is now obliged to import.

Production facilities are being multiplied in order to supply the nation-wide demand for Nationals. The minimum output for 1920 is placed at 1,500

trucks. To turn out 30 dependable motor trucks per week is a task of large proportions: It is a Canadian industrial achievement.

The fact that they are daily used in every line of business in cities and rural districts from coast to coast, speeding up production and distribution—ensuring efficient, dependable truck service—is a strong endorsement for National Motor Trucks.

Nationals are built for mileage. Fully equipped branches in all important centres. Built in six models—1 ton, 1½ ton, 2 ton, 3½ ton, 5 ton trucks and 6 ton tractor.

National Steel Car Corporation Ltd.
Hamilton - - Ontario

How We Are Shod

*13,400,000 Pairs of Shoes, Valued at \$43,300,000,
Made in Canada in 1918--By Alex. Marshall*

THE gradual evolution of Canada's shoe industry is one of the not uninteresting stories of the development of this country's manufacturing endeavors. Comparatively few Canadians are aware of the strides that have been made in this department of industry during the last decade.

Going a little farther back an "old timer" will recall the welcome visits of the peripatetic shoemaker when the whole family were measured and fitted out with an annual supply of boots. The head of the family provided the leather and supplies and the shoemaker took up his tedious job of working them into more or less comfortable footwear.

The introduction of machinery in time displaced the old-time methods just as the thrashing machines displaced the flail. What he could accomplish in a year was turned out in a few days by machinery and a small operating staff. Canada's growing markets at home and abroad soon made work for thousands of families.

The custom shop played a part in the next stage of development and in a survey recently made it was found that 33 of these establishments were still serving a useful purpose in making shoes. The huge bulk of the business is now produced, however, in factory establishments from Vancouver on the west to Fredricton and Amherst on the east. Few of the general Canadian public have any real idea of how extensive the shoe manufacturing industry is in Canada. They see here and there an odd factory or two and have the general impression that it is struggling to supply some minor Canadian requirements. A revelation is awaiting when they learn the number of factories, the huge total output, its high quality, and when they learn the number of Canadian families that find their livelihood in the shoe trade. These figures will link the industry definitely with the life of the country and show it off in its proper perspective and relationship to other branches of industry from the farmer raising the cattle with valuable hides to the ultimate wearer of shoes.

Material From Many Sources

In 1918 of all the leather used in the shoe industry about 80 per cent was tanned in Canada and about the same percentage of all the upper and sole leather produced in Canada was turned into Canadian-made boots and shoes, and the tanning industry is one of no small proportions.

To satisfy the varied demands made by the public, many strange and distant places are searched for necessary raw materials. Little does the happy goat, skipping from rock to rock on its native cliffs in Algiers and Morocco, reckon today on forming, a year hence, the fine glistening upper of the shoe of a lady making afternoon calls in Calgary or Victoria. If you told Kipling's barefoot boy "Kim" that the hide of the little bull in the market place of Lahore, whose soft nose he kicked with his grimy toes, was going to be scuffed out on the iron legs of a school desk by a boy in Eyebrow or by a red-blooded Woodstock lad propelling a coaster waggon along the hard pavements, would he believe you?

India also, as well as Egypt and the southern States, contributes its quota of cotton for linings. The busy silkworm in China spins its little cocoon ultimately to take the form of a woven label bearing attractive trade marks. Lonely prospectors in New Zealand start their fortunes by gathering Kauri gum for dressings and adhesives. Beautiful Ceylon and trop-

ical Africa with their patient, indefatigable rubber collectors help to swell the needed requirements. Calf comes from practically all quarters of the globe.

How many of the Winnipeg "dandies" or the Montreal and Toronto "swells" know that the leather that covers their ankles possibly was once part of the hide of the sportive Kangaroo hopping about on his native sunny plains of Australia or that the shiny patent leather over his toes once belonged to a shaggy pony roaming on the steepes of Siberia?

Please don't let these romantic examples lead you away from the main fact that 80 per cent. of the leather used in the Canadian boot and shoe industry is produced in Canadian tanneries which create a market for Canadian hides.

All these and more are gathered together and by the enterprise and energy of the manufacturers, by the modern methods employed in Canadian factories and by skilled employees, are wrought into a finished product par excellence, whether from the point of view of an artistic creation or as solid shoes of good appearance and high-class wearing qualities.

It is of vital importance that Canadians should take a proper pride in the excellence of product made in the factories of this country. The misconception that imported footwear is of higher quality than the domestic product seems to be held in some quarters and should be eliminated. Competent judges advise us that few qualified shoe men, even, are able to tell the difference between imported shoes and the Canadian product unless they bear some distinguishing mark. That prejudice also plays its part is evidenced by the fact that not infrequently goods made in Canada are passed off as the product of other countries. That they should know these facts about their industries is due the people of Canada.

Over 200 Operations in Making a Shoe

Now then, how are these shoes that we are talking about, made? Since there are some 200 or more operations in the manufacture of a shoe it is obviously impossible to go fully into

details, but as the operations divide themselves into groups possibly we can cover the great divisions.

In point of preparation, cutting is the first operation. Soles, heels, uppers, linings, facings, etc., are all cut and made ready usually in 30 and 60 pair lots. Both hand and machine die methods are used in cutting. The cut upper leather (vamps, quarters, tips, etc.) linings and facings are then brought together and sewn by fast running machines operated by girls. Labels, buttons, eyelets, tongues, etc., are fastened on but at this stage, if worn, the wearer would be literally "on his uppers."

After the stiff box toe has been inserted between the lining and the leather, the insole or, in the welt process, the welt is fastened on to the upper. In many cases a middle sole is also required. Then the outsole after due preparation is attached to the partially completed shoe. Various methods of fastening are used according to the type of shoe required. The principal methods are known as the Goodyear Welt, McKay, standard screw, peg nailed and stitch-down processes.

In the welt process, a narrow strip of leather which finally leaves a slight projection all round the outside of the shoe is stitched onto the upper with strong waxed thread. The insole fits flush with the welt, the middle and outsole being then sewn on. A few tacks are inserted to hold the parts together temporarily during the operation. The McKay is also a sewing process by which the upper, the insole and outsole are all united in one operation by a special McKay stitcher, the thread passing through hot wax. In the standard screw process the sole is fastened on by an ingenious machine which drives turns and cuts pieces of wire at intervals into the different component parts of the sole. The pegging method practically describes itself but is not much used. Children's shoes are frequently made by simpler and numerous methods chief of which is probably the stitch down.

The welt process is very generally used in men's and women's fine shoes and infrequently in children's. McKay's are generally women's girls and misses,

while standard screws and pegged are the methods practiced largely in the manufacture of men's and boys' work and school shoes.

Then we reach the old shoemaker's joke about the last which is not the last but near the middle. Lasting is a very important operation calling for strength and agility on the part of the workmen and putting considerable stress on the machinery. The solid wooden last remains in the shoes for periods varying from six hours to six days. The lasting gives the shoe its shape and conformation.

Next, the heel is attached and to outward semblance the shoe is complete but much yet remains to be done before the shoe reaches the state of pleasing perfection in which you see it in the retailer's shop. Trimming, edge setting, buffing, polishing, inking, staining and a host of other apparently tridding things have to be done before the shoe is ready for the packing room where we will leave it since it reaches there in the state you get it on making your purchase.

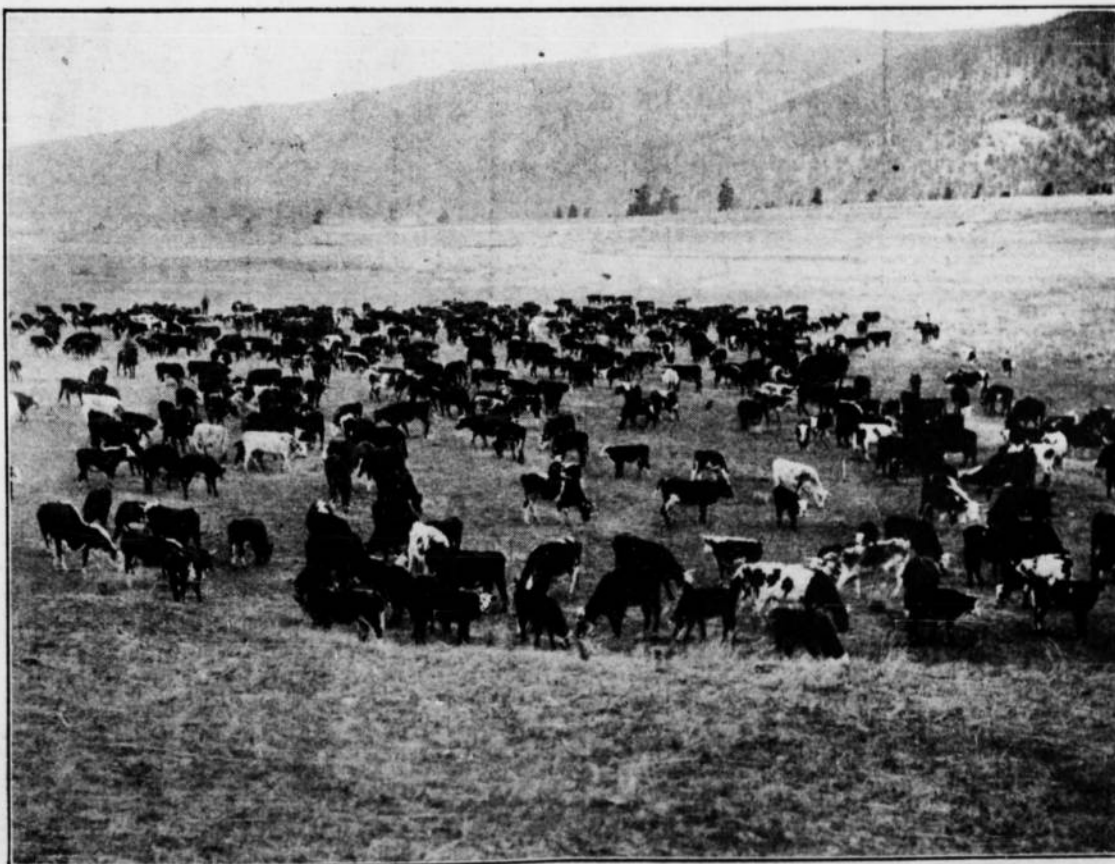
Canada makes 13,000,000 Pairs Annually

How many pairs do we make in Canada? What is the value of the total production? What districts produce them? How many factories make shoes? How many people are employed? Simple questions, and, we hope, to the point.

In 1887, in addition to the shoes produced by the travelling shoemakers and custom shops, the factory production in Canada would barely reach 30,000 pairs. In round figures by 1918 the factory production in Canada had reached the immense total of 13,400,000 pairs, embracing infants', children's, misses', youths', boys', women's, and men's, of all kinds and prices. These were valued for sale at \$43,300,000. With regard to cost, the shoe manufacturer is in the unhappy position of having to see his raw material increase greatly in price, due, in part, during the war at least, to the withdrawal from peace purposes of very large quantities of hides and other raw materials without which the tanner cannot adequately provide for his shoe manufacturing customers. The representative of the board of commerce who conducted an enquiry in the shoe trade recently turned in the following data at a session of the whole board: "Upper leathers," he said, "have risen by 127 per cent.

between 1913 and 1918, while between 1913 and 1919 the rise has been 338 per cent. Sole leather has increased by 177 per cent. since 1913, while findings have advanced by 109 per cent. Labor costs also had risen sharply." Under these conditions it is hard to conceive how any amount of ingenuity or skill or mechanical perfection could have kept the manufacturing cost of shoes below what it is.

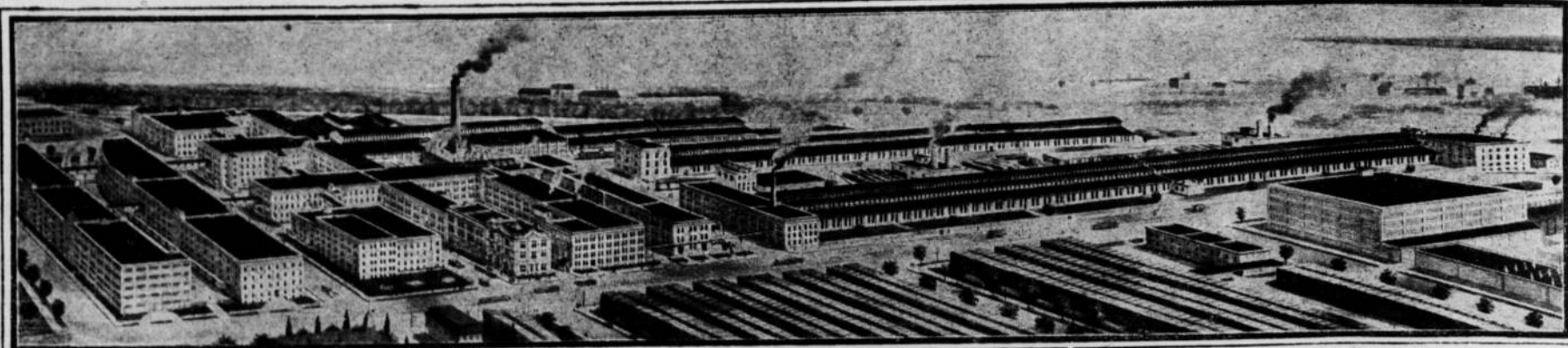
The principal districts engaged in the production of shoes are Toronto and western Ontario with two factories east of Toronto totalling about 50 for the whole province. Montreal and Quebec city with a few factories at intermediate points run to about 80 factories all told for the province. The remainder are distributed in the other provinces but chiefly in the maritimes. The total for Canada is 152 plus the 33 noted in an early paragraph. In 1887 there was one factory in all Canada solely devoted to the production of boots and shoes. Of men and women, girls and boys, there were 14,714 good Canadians engaged in the production of good Canadian footwear in 1918 and their numbers are increasing.



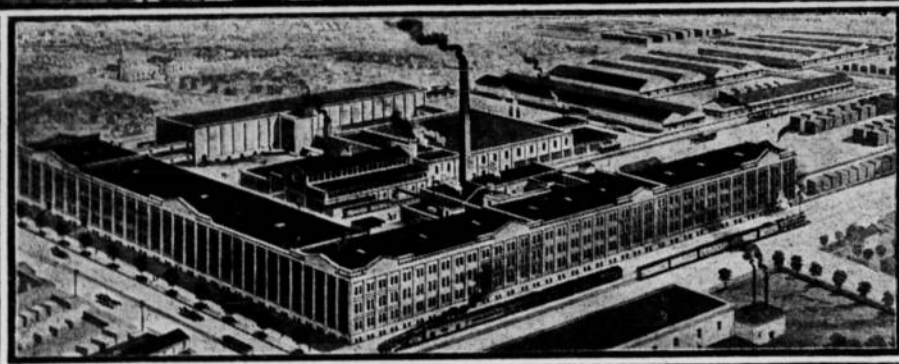
One Source of Leather Supply.

The goats of Algeria, the Kangaroo of Australia, the Wild Ass of Siberia, are a few of the many other contributors of leather to the shoes we wear.

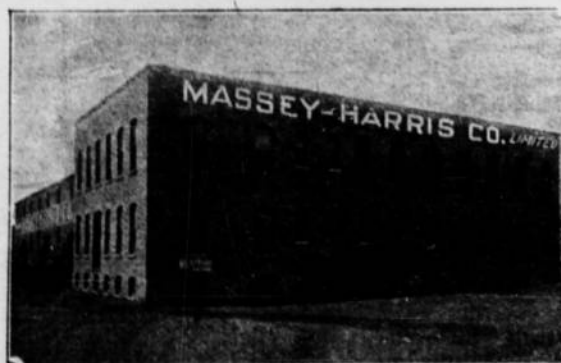
Massey-Harris Factories



Toronto Factory.

Woodstock
(Wagon)
Factory.

LONDON, ONT.



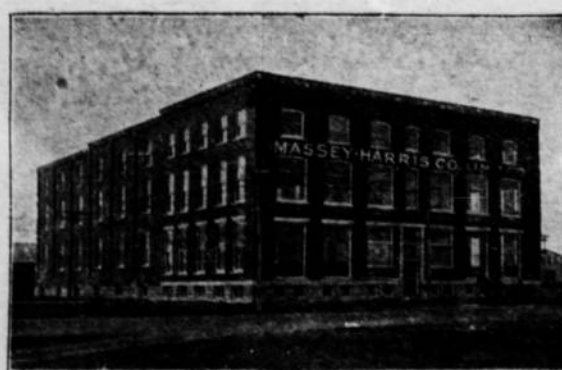
Montreal, Que.



Moncton, N.B.



Winnipeg, Man.



Swift Current, Sask.



Regina, Sask.

Quality

Quality in farm implements is what has brought the Massey-Harris Organization to be the largest of its kind in the British Empire.

Beginning away back in 1847—73 years ago—the few Implements turned out then, were known for their uniformly high Quality, and to-day in the five large Factories now kept busy turning out all kinds of Implements—Quality is the one thing most sought after. The reason given by most farmers as to why they kept on buying Massey-Harris Implements is—"They are so uniformly good and reliable."

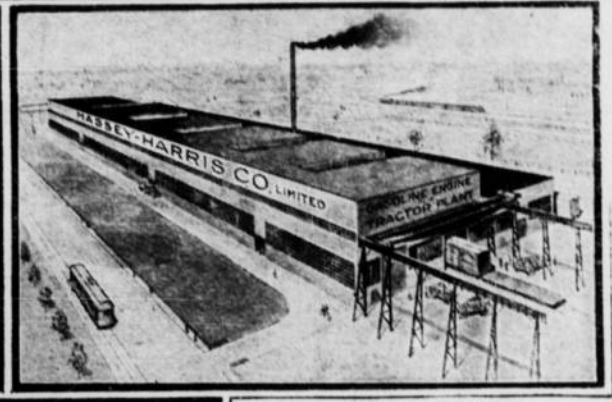
The materials which enter into the Implements bearing the name Massey-Harris are the best that can be procured, and the workmanship is thorough. Every Machine is tested, and must come up to the Standard before it is allowed to leave the Factory.

The name Massey-Harris on Farm Implements is, therefore, the farmers' best guarantee.

and Canadian Branches



Brantford Factory.



Weston Factory

Brantford
(Plow)
Factory.

Service

As with Quality, so also in Service, Massey-Harris excels. Branch Offices in all large cities, and local Agents in almost every town and village, assure you of the very best of service, whether it be the setting-up and putting into operation a new Machine, or the supplying of Repair Parts just at the time you need them, and saving you from disastrous delays during busy seasons.

The Line of Implements Manufactured is complete, enabling the farmer to equip throughout with Implements, all of which bear the name Massey-Harris and are covered with the one guarantee of Quality and Service.

THE LINE COMPRISES:

Grain Binders.	Hoe, Shoe and	Cream Separators.
Reapers.	Disc Drills.	Plows.
Corn Harvesters.	Fertilizer Sowers.	Scufflers.
Mowers.	Disc Harrows.	Land Rollers.
Rakes.	Drag Harrows.	Packers.
Tedders.	Feed Cutters.	Wagons.
Side Delivery Rakes.	Pulpers.	Sleighs.
Hay Loaders.	Grinders.	Gasoline Engines
Cultivators.	Ensilage Cutters.	Saw Outfits.
Fertilizer Drills.	Manure Spreaders.	Tractors, Etc.



Calgary, Alta.



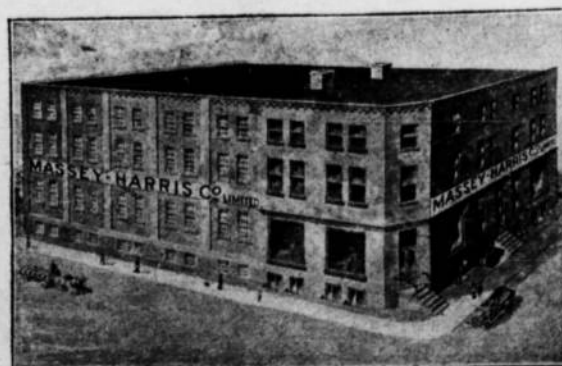
Edmonton, Alta.



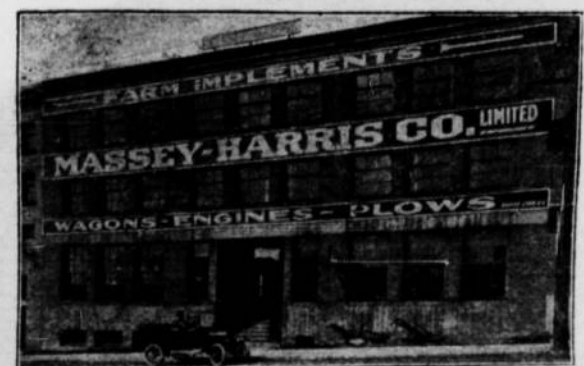
Kamloops, B.C.



Saskatoon, Sask.



Yorkton, Sask.



Vancouver, B.C.



As Good a Man as Ever.

THERE was a time, not so long ago, when the treatment of her discharged soldiers was a deep blot upon the good name of Britain. Her old professional army was in the main recruited from the very lowest classes; they had little education to start with and scant efforts were made to add to it or teach them a trade during their sojourn in the ranks. The result was that when their time expired, they were cast adrift with a beggarly pittance and left to fend for themselves without any adequate equipment for industrial and agricultural life. Many of them drifted into blind alley jobs of a precarious nature and the old soldier who was a professional tramp or match-seller was not an uncommon sight. The United States was the first country to make decent provisions for her soldiers, beginning with the veterans of the Civil War. There was some improvement in Britain after the Boer War and the Canadian veterans of that conflict were rewarded with liberal grants of land. But when the great war came and it was obvious that it was no affair of professional armies but a deadly struggle involving the whole community, it was also plain that the problem of restoring the great army of civilian soldiers to their old life, once victory was won, would present great difficulties and could not be tackled without new ideas and a new organization.

Department of Soldiers' Civil Re-establishment

Here in Canada we began with a body called the Military Hospitals' Commission which had several unsatisfactory features, and eventually transferred its functions and responsibilities, early in 1918, to a department of the federal government, which, under the charge of Sir James Lougheed, was given the title of Department of Soldiers' Civil Re-establishment, and has shouldered the main part of the task of restoring our soldiers to the civilian life that they abandoned for the game of war. Briefly described the functions of this department are the administration of all governmental activities on behalf of discharged soldiers with the exception of land settlement. Demobilization, pensions, postdischarge medical care, artificial limbs, industrial retraining and, indirectly, employment, come under its purview.

Gratuities

When the soldier has been transported to the discharge depot which he has selected in Canada, his papers are examined and he is demobilized with all possible speed, being allowed to retain a certain portion of his equipment and also being furnished with free transportation to his final destination. He is also, in addition to being paid any arrears of pay which may be due him, awarded a gratuity in proportion to his rank and length of service. This gratuity has been a constant subject of controversy, and the last has not been heard of it, but the following is a comparative statement of war service gratuities paid by different countries for a private who has three years' service to his credit:—

THE RE-ESTABLISHMENT OF THE SOLDIER IN CIVIL LIFE

By John A. Stevenson

		Service Overseas	Service at Home
Gt. Br'n		\$82.73	\$53.53
Australia	Married, \$114.15		
	Single, 98.62		
N. Z'd.	Married, \$54.55 plus \$7.00 for each child under 16.		
	Single 34.09		
U.S.	\$60 and some additional states are giving additional grant of \$10.00 per month for twelve months.		
Canada	Married	\$600.00	\$300.00
	Single	420.00	210.00

Employment of Returned Soldiers

When the soldier has arrived at his discharge depot, he has also been befriended by the local Returned Soldier Commission and other voluntary bodies, and has, probably, been by them directed, if he needs work, to the employment office. There he has found a representative of the Department of Soldiers' Civil Re-establishment who is charged with the duty of looking after the interests of all soldier applicants and seeing that they secure a preference for the jobs available. At each dispersal station there is a demobilization officer of the S.C.R. (Soldiers' Civil Re-

establishment Department) who acts in an advisory capacity to the men. Practically all the men employed on these duties are returned soldiers themselves. The Department of Labor co-operates in every possible way by furnishing information as to chances of employment and other assistance. There are now over 90 free government employment agencies opened from the Atlantic to the Pacific. Up to September, 1919, the date of the last available figures, 204,326 members of the C.E.F. had been interviewed at the time of their demobilization with an offer of assistance; 119,325 requests for information in regard to government benefits had been dealt with; 53,165 applications for placement in touch with employment opportunities had been received, and of these 34,618 or 65 per cent. had been placed in positions. The information and service branch of the S.C.R. carries on an active campaign with employers of labor to induce them to recruit their staffs from ex-soldiers. An excellent follow-up system has also been organized whereby touch is maintained with the demobilized veteran even after he had secured employment to make certain



Still Good for a Day's Work.

that he is satisfactorily settled in civil life. Such is the work which the S.C.R. does for veterans who have returned from the wars in good, physical condition. But large numbers do not come back in this happy state, and for such as are disabled the department undertakes to provide (a) medical service and (b) vocational and industrial training.

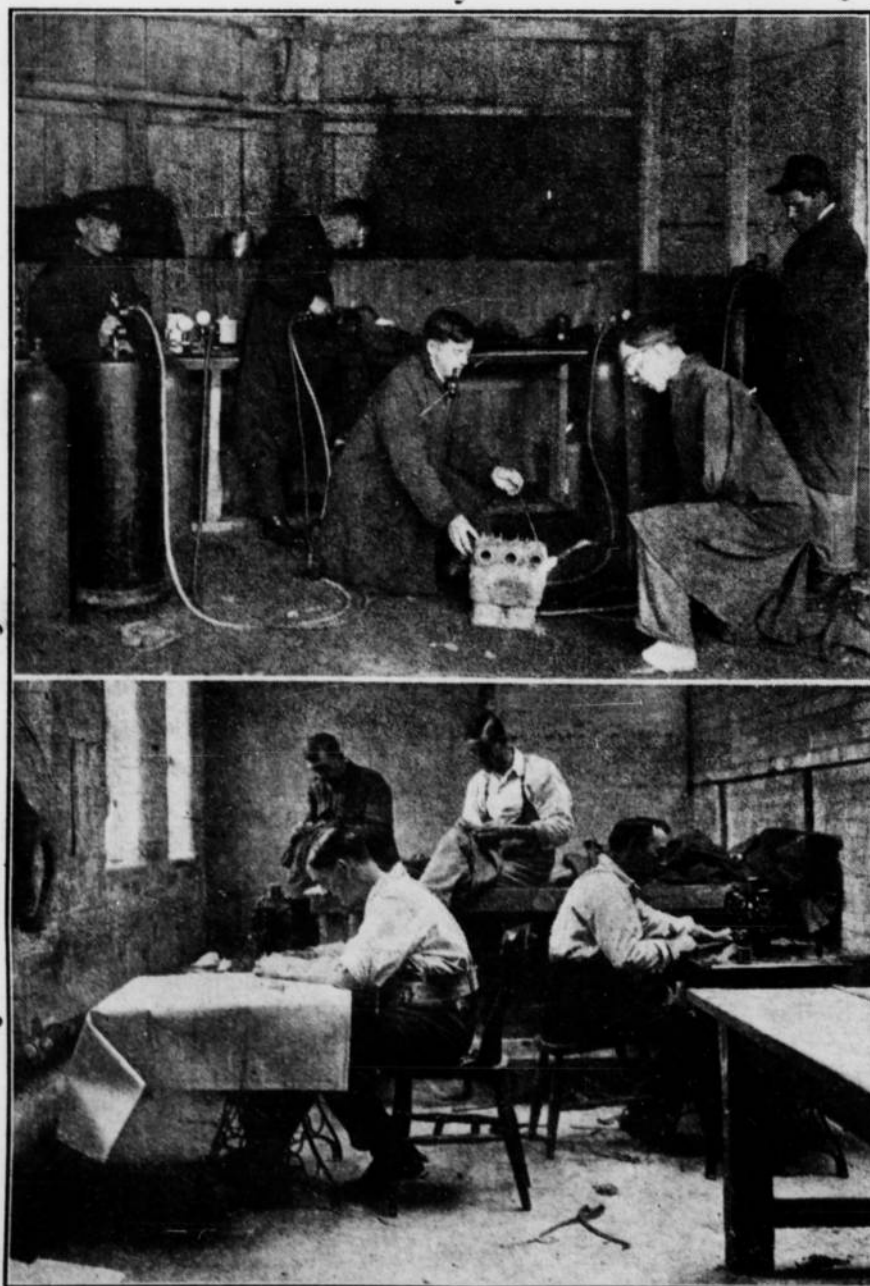
The Medical Service

By its medical service the department tries to restore as far as possible to complete physical fitness all soldiers who have suffered disability in the war. Till within the last year the Militia Department, working through the C.A.M.C., had charge of a large part of this medical work, but it is now completely in the hands of the S.C.R. In September, there were 10,780 patients under treatment. This total included 1,729 tubercular patients, 688 insane patients, 4,163 medical and surgical cases, and 4,200 patients receiving treatment in clinics or outpatients in hospitals. Patients in hospital and their dependants receive adequate pay and allowances, lately raised under pressure from the G.W.V.A., while they are undergoing treatment for disabilities due to war service. If the latter bring back a recurrence of illness, free treatment under the same conditions is given by the department. Free medical treatment is also given to all ex-members of the forces who fall ill from any cause within one year of their discharge from the army.

There is a special branch dealing with artificial limbs and surgical appliances. Since its creation it has looked after 13,754 amputation and orthopedic cases; 3,439 artificial limbs have been supplied; 2,676 legs and 763 arms. Also 3,076 pairs of orthopedic boots have been provided. At one time considerable trouble arose through attempts of greedy profiteers to make veterans dissatisfied with the artificial limbs provided by the S.C.R. in order that they should buy the products of private firms. To check this a government-controlled factory for the manufacture of artificial limbs, orthopedic boots and surgical appliances was set up in Toronto and a rigid monopoly put in force with satisfactory results.

Vocational Training and Industrial Retraining

In the S.C.R. there is a special section called the vocational training branch which undertakes to provide disabled men with a training calculated to enable them to hold their own in civil life and secure a good living. A large number of establishments are maintained in connection with it and the co-operation of many prominent corporations has been secured. Men are also retrained to enable them to resume their pre-war employment. At the end of September last there were 11,161 men taking these courses, and over 4,100 had passed out of the schools, 84.1 per cent. of whom were known to be in good employment, while 8.6 per cent. could not be traced. Only men who have been wounded or disabled by sickness are eligible for these courses. While the veterans are attending them, the allowances, which they sometimes



Preparing to Again Take their Place in Civil Life.

Upper: Oxy-acetelene Welding. Lower: Learning the Tailoring Trade. Soldier Civil Re-establishment Work, Hart House, Toronto.

Continued on Page 71.

Crerar on National Policy

NOTE.—The following comprises the more important points of an address delivered by Hon. T. A. Crerar, M.P., at the annual convention of the United Farmers of Alberta, at Calgary, on January 22, 1920:—

It has been charged against the farmers' organizations that they are selfish in character. The current idea, at any rate, until a few years ago—the current notion of a farmer was that of an individual whose success depended almost altogether upon the amount of muscular energy that he threw into his work. Those who sat in high places of the land had the notion that the farmer's place was tilling the soil, that he should rise at three or four o'clock in the morning and toil his weary hours through the day and repeat this process day after day and week after week; and that, while he was engaged thus, there were others who could look after the main business of the country. Now, let me say this, that there were far too many farmers in this country that had only this conception of their own position in society and in the public life of the country; and one of the most hopeful signs there is to-day is the awakening intelligence in the agricultural portion of our population, bringing this thought into the minds of our farmers, that success in their occupation depends not alone on the number of hours of hard work per day they put into their business, but it depends as much upon their intelligent planning, upon their studying those other questions that are vital to their life and to their prosperity. Surely it is of as much importance to the man on the land to know how his grain is being marketed, to know what process of transportation it passes through before it reaches the ultimate market, to know the causes that operate on the costs of everything that he has to buy and sell, all factors in the problems he has to solve.

Farmers Place in Society

So, coming back again, we had this old current notion of the farmer's place in society. It is natural that, with the success that has attended the development of our organizations, criticism covering a wide range, some of it honest, much of it interested, should be very frequently directed against them. One of the most common criticisms that one hears levelled against the farmers is that they are selfish and, in the new era, the dawn we see coming, a hope of a better day in Canada, there are some people in our country rather frightened with the idea that the farmers may secure too strong a position of influence in the legislative making machinery of the land; we find many people disturbed and they say, "I know if these farmers succeed they will think of nothing but farming; they will think of nothing but their own selfish interests." Well, Mr. Chairman, I have followed for twelve years very closely the work of the organized farmers in this country; I have attended practically all of the conventions during that time in these three prairie provinces, and many outside of them, and I doubt if there is anywhere in this country a similar body of men in any other walk of life that have taken the broad outlook on public questions that the farmers of this country have taken. (Applause).

We hear the charge levelled that, in seeking to bring into effect in this country certain policies which have had the approval of the farmers and to-day are securing the approval of thousands of other citizens in this country, we are aiming at selfish legislation. I have said it before, and I repeat it now, that I challenge any fair-minded man to take the declaration of political principles set out in what is known as the Farmers' Platform, lately christened "The New National Policy for Canada," to study it word by word and line by line and paragraph by paragraph, and point out a single thing in it that is advised only to benefit farmers in this country. (Applause). It cannot be done. And consequently, when that charge is levelled against the farmers of this country, it is a charge

Viewpoint of Former Minister of Agriculture on Some of the Outstanding National Problems.

that rests upon an unstable foundation.

Our Railway Problem

Well, first there is our transportation system. The Canadian people to-day own 22,000 miles, or at any rate will in a short time own 22,000 miles, of public railways in this Dominion. The organized farmers of Canada have been consistent in their advocacy of public ownership of railways. They believe that all those things that are in their nature natural monopolies should be publicly owned. That is why they believe in public ownership of railways. Yet, this problem of administering 20,000 miles of railway is a vast problem. It is made more difficult by the fact that our railway policy in the past has not been a sound policy in all its aspects. We have duplicated lines; we have built railways at an enormous cost in through territory that could very well have done without railway service for 25 or even 50 years.

You can travel for instance, in this province and in the neighboring province of British Columbia, along the line of the Grand Trunk Pacific, as some of you doubtless have travelled, over hundreds of miles and you will see all the way the skeleton remains of another transcontinental line that was built a few years ago. Here are two lines running through the Yellowhead Pass. In the pressure of the war, when rails were needed at the front to build railways for bringing up supplies to the armies, the rails were lifted of hundreds of miles of track in this district, and one can travel here for hours and scarcely ever be out of sight of the remains of a railroad, iron bridges, concrete culverts, tunnels through rock, and rock cuts, the most expensive kind of road to build, and not a rail upon it, and I venture to say rails will not be laid on it again for fifty years because they are not needed. But, nevertheless, the fact remains that there are hundreds of miles of this wreck of a railway, where the capital issues outstanding against it are over \$90,000 a mile. The interest has to be paid on this and the money has eventually to be returned to those who furnished it. Railway promotions in this country in the past have been one of the fruitful sources of jobbery and corruption in our public life (applause), and railways have been built in this country by almost thousands of miles, not because the roads were needed by the people but because it afforded an opportunity to the private promoters to line their own pockets, and they have done it (Applause); and the penalty that we have to pay to-day for our apathy and indifference and mistakes in the past is that the country is committed to these burdens and has to pay them.

Write off the Waste

That problem of the administration of our public railways is a great one because they are starting under serious handicaps. Personally, I favor this plan, when we secure the Grand Trunk, as a result of the negotiations now under way, of revaluing the whole national railway system of Canada and put it down to a proper basis.

What does a business man do if finds he has got into business difficulties, if he finds he has expended money that is useless? In fact, what do his bankers insist that he do? He has got to re-establish his position by revaluing his assets and putting them

down to a proper worth and that, to my mind, is one of the first things that should be done with our national system of railways. The whole thing should be gone over, their worth put down to a sound value and the difference written off to the debt of Canada. There is no other way to do it. (Applause). When this has been done, these roads are placed in the position where they can have a fair chance to compete in the public business of the country. When you have loaded a railway system down with many hundreds of miles of useless track that has been costly to build, you are putting a pretty heavy burden on the road to make it pay, because the revenues from the road will be expected to meet all the charges that arise upon it and that, of course, is a thing under fair conditions that no one can find fault with.

Compulsory Military Training

But there are other questions in the federal arena that will shortly be facing us. There is the question of what our future military establishment in this country shall be. I am afraid—I hope I am wrong—but I am just a little bit afraid, that there are some people in this country who would seek to bring about in this fair Canada of ours something approaching to a state of militarism or at any rate a state of semi-militarism.

I don't think it can be done. But we had before the war a militia establishment under the old Militia Act of 5,000. That was the limit of our permanent militia establishment under the old Militia Act. Power was taken by the Government a year ago to increase that to 10,000, and one sees frequently the suggestion that we must have compulsory military training, that we must be prepared for whatever the future may bring. Now, we have seen the world cursed for five years with the bloodiest war in history as the result of what? As a result of the military instincts of a great people—purposely developed. You cannot train men's minds in a certain groove without helping to bring on the very thing you are seeking to avoid in that regard. (Applause). The Canadian people will make the profoundest mistake they have ever made if in any way we commit ourselves to any form of compulsory military service. (Applause) And not only that. There is the expenditure in connection with it. The war we have passed through has proved this if it has proved anything, that success in waging it depended not alone on the fact that we had trained a man to carry a gun and go through certain evolutions; it was a war that was won in the factory as much as on the field; it was a war that was won by the agriculturist as much as the man who carried the musket; and, consequently, if we are going to have national preparedness, is not that form of national preparedness the best that will develop a healthy virile population; that will bring about a people that love their country and will rise to the defense of their country whenever the occasion requires it? We don't want guns and forts and militarism in this country beyond what we have had in the past. (Applause).

A Canadian Navy

There is another matter in connection with this, and that is, the establishment of a Navy. We see reports also in the newspapers that it is necessary to have a considerable naval establishment in Canada and some steps have been taken already towards ascertaining what would be the best form in which this could be done. Do we want to build expensive war ships at the present time with the financial position that this country is in? (No, No). I think not, and, at any rate, this whole question of naval expenditure—any proposal to spend millions of dollars in creating a Canadian Navy—should be thoroughly discussed by the Canadian people from one end of Canada to the other before any decision is reached upon it. (Hear, hear). We do not want a naval policy brought down in Parliament and forced through parliament before it has been fully and freely discussed by the Canadian people (applause) and I am sure that is a sentiment that the United Farmers of Alberta are in entire accord with.

There is also the great question of our Imperial relations, and what they shall be in the future. We are told that they are to be different from what they have been in the past; that Canada, as a result of the war, has taken on a new status and a new position among the nations of the world. Our effort in the war, and the part Canadians played in that great struggle has given our country a dignity and a place in the world that was not accorded her before. But this question, likewise, is one that should be fully and frankly discussed by the Canadian people before any decisions are reached that will tie Canada up to any form of Imperial Council or cabinet or parliament—I care not what you call it—that may deprive us of any portion of the autonomy that we now enjoy. (Applause).

The Old National Policy

I often think, Mr. Chairman, that in the energy with which we have been pursuing the more material things in this country, we have sometimes failed to quite realize the full meaning and the effect and results produced by certain of our national policies in the past. In 1879 what was called the National Policy of that day, a system of Tariff Protection to Industry, was given approval by the Canadian people, and adopted as our fiscal policy. I do not know that there was a very great deal of solid belief in the efficacy of the principle in the minds of those who then advocated it.

If my memory of history serves me aright, the whole question hinged on a very slight change in the budget that was brought down by the Mackenzie Government in 1878. It was unknown before that budget was brought down what proposals it would contain in respect to the tariff. There had been an agitation throughout the country for an increase in the duties, the average of which I believe at that time were 15

Continued on Page 56



Hon. T. A. Crerar.



The Bogey of many a game

TORN clothes are inevitable, yet they remain the bogey of many a childish summer game. Fear of the scolding that may follow the discovery of a ripped blouse, or skirt or trousers, helps turn many a youngster into a prim little old man or a finicky little old woman.

OF course the good mother has plenty to do without the mending of unnecessary holes and the head of the family has sufficient demands on his income without having to buy unnecessary suits of play clothes.

BUT an excellent compromise may be made in this way: Ask at the Cottons counter for "**PRUE COTTONS.**" For example, one

of the *Prue* Cottons is "*Steel Clad Galatea*"—and it *is* steel-clad. On the other hand **PRUE** Cotton prints offer a great variety of light, clean, cheery long-wearing and washable materials at prices so low as to make a rip or two seem unimportant. If these are not what you wish there is a wide range of ducks or heavy plain cottons, all with the **PRUE** Cotton mark to guarantee their superiority.



"PRUE" stands for PRUDENCE

It is the seal of the prudent housewife's approval that has established Dominion Textile Cottons—"Prue" Cottons—as the best entering the Canadian household

**DOMINION TEXTILE
COMPANY LIMITED**

MONTREAL

TORONTO

WINNIPEG

The Clothes We Wear

READERS need not surprise or have fear from the title of this article that it is going to have any personal application, or that its purpose is to describe the effects of Sir George Foster's war-time appeal to economize by wearing "old clothes." Necessity has compelled so many people to acquiesce in Sir George Foster's suggestion that the wearing of old clothes is no longer a novelty. Rather it is intended to give to the lay mind some idea of the interesting and romantic processes through which the wool, cotton or shoddy, as the case may be, takes its course, before the finished product is delivered at the home of the consumer by the tailor or dress-maker's messenger.

Seldom does the wearer of an overcoat, a tweed suit, a jersey cloth gown, a printed cotton or silk shirt, or comfortable underwear, give a single thought to the multiplicity of processes and operations that had to be gone through and performed before the particular cloth or suit, caught the fancy in the retail store. Yet, of all human needs, there are few more important and perhaps none that has developed such a variety of processes, or used in such infinite degree the mechanical productions of man's ingenuity.

To the great mass of consumers textile manufacture is a mystery to which they have no key, and even the people who handle textile goods, wholesalers, retailers, warehousemen and others, have but a superficial knowledge of the processes and methods by which the commodities they sell were made, or of the degree of technical skill required in many allied branches before the textile manufacturer was able to "deliver the goods."

Washing and Sorting The Wool

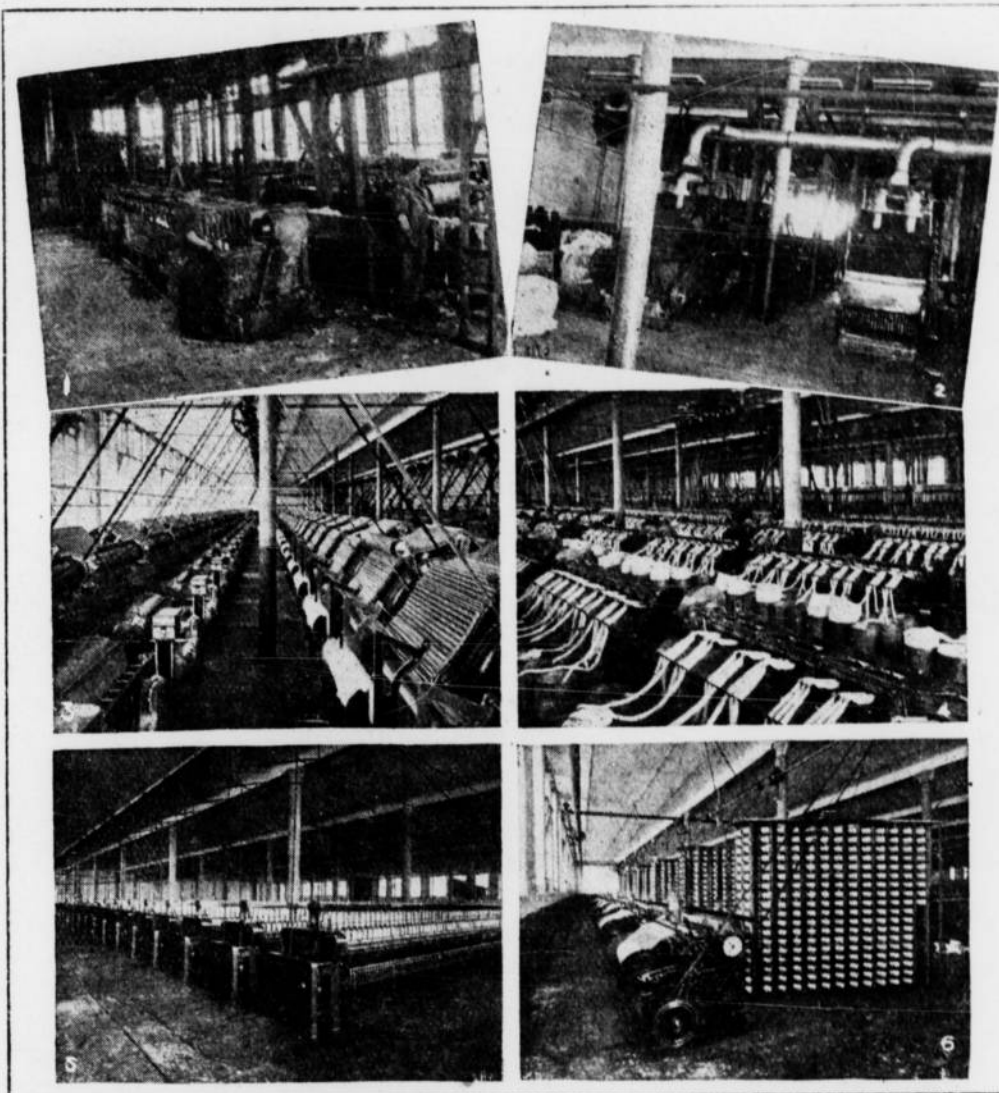
Readers of *The Guide* are likely to know more about the first process—the shearing of the sheep—than does the writer. After the wool has been gathered from the farmer, graded and sent to the woolen mill, it is washed. And here, it might be pointed out that every single operation in the manufacture of textiles demands the greatest care and technical skill so that the finished product may be what it was designed to be and show no defects, for all the processes are dependent one upon the other and bad work in one cannot be mitigated in another. Thus, washing the wool has its importance because upon this manipulation depends the success of subsequent operations in the manufacture as well as in the final dyeing. Care has to be taken that the proper detergent is employed, that the soap contains not too much free alkali, otherwise, not only the dirt, yolk, etc., are removed from the wool, but the fineness of the fibre is also deteriorated, the fine serrations of the fibre being destroyed, while the retention of these is of prime importance in a later operation.

After the wool has been washed, rinsed and dried, the sorter takes hold of it. The sorting of wool is conducted in a far more systematic manner than is usually supposed by the ordinary person. Twelve, and sometimes fourteen, distinct grades of wool are obtained from a single fleece, each of which must be separated from the other and allotted to individual boxes before they are suitable for use in the construction of a woven fabric, unless it be a common flannel or blanket, and even then it is found advantageous to make an assortment according to the character of the wool. Sheep's wool is classified under two grand divisions. The first includes "carding wools," or those which are intended for use in the fabrication of woollen cloths. The second includes "combing wools" and are those intended for use in the fabrication of worsted cloths, of which more anon.

Picking and Carding

Alongside the sorting room usually is the picker, the essential object of which machine is to open and separate the matted locks of wool and to thoroughly mix and combine the several colors of

The Processes by Which Wool From the Sheep's Back and Cotton From the Plant Become Ready to Wear—
By the Editor of the Textile Journal



Processes in the Manufacture of Woollen Cloth.

1. Wool washing machine. 2. The opener. 3. A carding room. 4. Drawing machines at work. 5. Ring spinning room. 6. The process of warping. After warping the yarn is run through a size bath and is then ready for the weaving looms.

which the wool may have been dyed and of which the mix is composed. The wool is distributed on the feed table, conveyed by feed rolls to the cylinder and the rapid revolutions of the powerful steel-toothed cylinder act upon the wool in such a way that the matted, tangled tufts are all opened and rendered fit for the more delicate teeth of the carder machine.

The "blend" is then built in a stack and oiled before it passes to the carding room. Wool carding is a continuation of the foregoing process but upon a much more systematic and delicate plan. What is called the scribbler card opens the wool out lightly, the intermediate card treats it more severely, while the condenser brings it out in a regular film and divides it into a number of small slivers—small strings of wool. The cards are covered with innumerable fine steel wire points which grasp the wool as the cards revolve, opening and disentangling the fibre of wool, destroying their natural condition and rearranging them in parallel form with such an exceedingly fine degree of nicety as to favor their reduction to yarn by the subsequent process of spinning.

Spinning and Warping

Spinning is essentially for the purpose of imparting a twist to the previously-prepared strands of wool that come from the carding machine. Probably one of the most ingenious pieces of mechanism in the woollen mill is the apparently complicated, yet simple head motion of the self-acting spinning mule. It is a most fascinating machine to watch as it reproduces the motion of the spinster at the hand wheel who attenuated her thread by drawing away her hand from the spindle. In the mule the condensed sliver or strand of wool is drawn thinner by the outward motion of the carriage bearing the spindles which retreat bodily on wheels and rails away from the rollers that

pay out the slivers. The outcome of this operation is a yarn, inferior in tensile strength to the product of the worsted process (which is quite different to the woollen process—a never-ending surprise to the layman) but greatly superior in felting qualities.

The operation following the spinning and twisting is warping, if the yarn is intended for warp—warp being the threads that run length-wise of the cloth, and are usually two-fold yarn. Weft yarn is usually single and these are the threads that go cross-wise of the cloth and interweave with the lengthwise threads. Warp yarn, wound on creels after being spun and twisted, is taken from these and wound round the beam of the loom. As considerable strain is necessary to accomplish this work, the mechanism is contrived with a view to great strength. The ordinary observer would scarcely recognize a perfect warp in the multitude of yarns that form a mass of apparently mixed patterns at this juncture. It is quite a common thing for there to be 4,000 threads in a warp, and if it is a colored pattern the colored threads must be in their correct order.

After the threads are wound on the beam the yarn is sized, being run off the beam through a size bath and wound on to another beam. The idea of sizing is to add strength to the yarn and make the many different threads more uniform to facilitate weaving.

Weaving and Finishing.

Then to the weaving shed. There the threads on the warp are interlaced with the threads of the weft, the weft yarn being wound on shuttles which are shot backwards and forwards, interlacing the warp threads according to the design desired. Everything on certain modern looms is automatic, even to the replenishing of the shuttles. The modern weaving

loom, in its main essentials, is the same in principle as that which has been used by craftsmen from time immemorial. The only difference in the speed and complexity. The power loom has more motions than could be worked by hand.

The woollen loom used for the production of heavy clothes is run at a much slower speed than the worsted broad loom. On the latter there may be from 90 to 100 picks a minute, which means that the shuttle crosses and recrosses the width of the cloth from 90 to 100 times a minute and adds that number of threads to the cloth woven each minute. In a heavy woollen, with coarse yarn the weft threads in one inch may number no more than 30, and in a fine worsted there may be as many as 200, thus a certain number of yards of fabric of one sort that can be woven in a day may take a week to weave of another kind of cloth. As the woollen fabric leaves the loom no reader of *The Guide* would be got to say that he or she would like a suit made of that stuff. It is rough and unsightly, but the finishing processes are wonderful in their effect. There is just about as much difference between the cloth as it leaves the loom and the finished article as there is between the virgin wool and the woven cloth as it comes from the loom. First the cloth is scoured and this clears off the size; then it is milled to give it a full texture, creases are taken out by tentering, lustre is given by crabbing, the process of raising produces the pile, cropping makes that pile uniform, and then it is fixed with steam. There are many different kinds of finishes and naturally the processes differ with each.

For instance, the preliminary processes of preparing the noted Doeskin finish requires considerable skill in arranging the gig to disentangle the fibres on the face of the goods and adjust them in a parallel form without breaking or destroying their structure. The cloth is dampened, which tends to render the fibres soft and pliable. Frequently old teasles are employed in the first application followed by a new or sharper set. By this means the nap is gradually raised without breaking the fine, delicate fibres. The cloth is now dried and sheared, and again dampened and cross-raised (from list to list) then gigged from end to end in one direction and reversed, then dried, sheared and pressed. The boiling method is now used by successively winding the fabric around a large wooden roller and steaming it several times. The cloth is rewound at each interval. Another gigging is required, after which the cloth is rinsed in water and again dried for the final operations of dry gigging and shearing, followed by cold pressing which imparts lustre and brilliance to the face of the fabric.

That is merely an instance of the processes that have to be gone through before a certain finish can be secured. There is an infinite variety of finishes and an equally infinite variety of processes which could not even be enumerated in a short article. Indeed there is only space to point to a few of the more outstanding facts of interest connected with the many and varied branches of the textile industry and the work of those who make the products into the clothes we wear.

The Making of Worsted

The chief difference, perhaps, between the manufacture of woollen goods and the manufacture of worsted goods is the fact that worsted goods are made from long wool which is combed after being carded. Worsted goods are made in the loom, and not in the finishing as may be said to be the case with woollen goods. Fancy woolsens, however, are just as amazing in the complexity of their manufacture as are fancy worsteds. Another feature is that fabrics manufactured of yarns, in which the material is composed of cotton, flax, jute or other vegetable fibres, do not felt or mat. The woollen fibre is practically the only one that does so to

Continued on Page 67

World's Larder Still Empty

Continued from Page 7

people. There is not yet enough food in the world to be safe against extensive privation in case there should be a comparative failure of crops for one year. We have not got any reserve in sight. The nations of the world cannot afford at this state, after the great war struggle for justice and fair play, to leave humanity exposed to the calamity of a poor crop all round with no reserves to fall back upon. In Canada, to keep ourselves safe economically and make ourselves strong economically, we must produce and we must save. This course is the right and wise one for the nation. It is also the best one from every point of view for every province, every county, all communities and every individual farmer. To make the most progress in it and to obtain the largest profits and other benefits, we cannot do better than continue the local production committees of the farmers themselves. Where they have been allowed to lapse, they should be revived and strengthened, and, where none exist, they should be constituted throughout every province. No other single agency that I know of can do so much, or do it so well, for the immediate and permanent progress of agriculture.

Bank of Toronto Report

The serious problem of the national debt and the necessity for care in the conduct of the country's financial affairs was emphasized at the annual meeting of the Bank of Toronto by the president, W. G. Gooderham, who said that borrowing for non-productive enterprises should be discouraged.

The report presented to the shareholders was highly satisfactory, the figures indicating growth all along the line. Total assets were \$109,285,118, an increase for the year of \$9,077,121; deposits totalled \$86,712,997, an increase of \$7,673,723; loans and investments \$81,048,649 an increase of \$5,090,415; net profits were \$1,011,359 equivalent to 20 per cent of the paid-up capital. The dividend was increased from 11 to 12 per cent, the amount paid to stockholders being \$600,000.

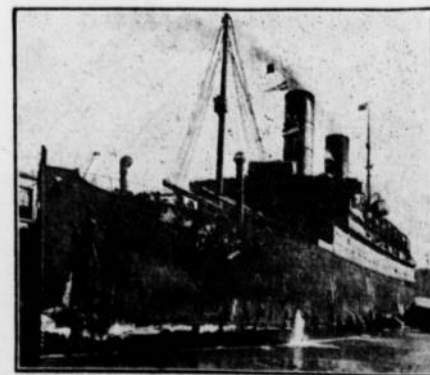
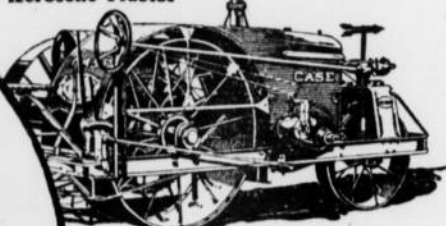
Dominion Bank Report

Shareholders of the Dominion Bank had every reason to be satisfied with the report presented at their annual meeting held in Toronto recently, the figures laid before them showing an increase all along the line. Deposits amounting to \$111,414,000 on December 31 last, were over \$15,300,000 in excess of the figure of a year previous, and net profits totalling \$1,169,703 showed a gain of \$83,205 over 1918. The profits were 9 per cent of combined capital and reserve, and in addition to the dividend of 12 per cent, stockholders received a bonus of 1 per cent.

A striking feature of the bank's statement was an increase of \$6,546,000 in the immediately available assets, the total of these being \$70,075,000 a sum equal to 54 per cent of the liabilities to the public. Cash assets alone, at \$31,903,000, made a gain of \$3,405,000 during the year. Total assets \$143,500,000 are \$10,000,000 greater than a year ago.

While wealth will not buy happiness it will purchase an imitation that is calculated to deceive anybody but an expert.

In spite of her recent drubbing, when she hears of our prohibition Germany will be convinced we can't liquor.

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Kerosene Tractor

To avoid confusion, the J. I. CASE THRESHING MACHINE COMPANY desires to have it known that it is not now and never has been interested in, or in any way connected or affiliated with the J. I. Case Plow Works, or the Wallis Tractor Company, or the J. I. Case Plow Works Co.

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Kerosene Tractor

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KEROSENE TRACTORS

The Case 10-18 Tractor drives 20 x 28 Thresher with Windstacker, Feeder and Grain Handler; No. 12 Case Silo Filler with 40-ft. blower pipe; 17 x 22 Hay Baler; will pull 2-bottom plow, 6 to 8 inches deep, depending on soil and field conditions; 8 ft. double-action Disc Harrow; 22 shoe Grain Drill; two 6 ft. Binders.

The Case 10-20 Tractor drives 22 x 36 Thresher and full equipment; pulls 3-bottom plow, under favorable conditions; other machinery requiring similar power.

The Case 15-27 Tractor drives 26 x 46 Thresher with Feeder and Windstacker; three 14 in. plows in hard plowing, or four under favorable conditions; 10 ft. double-action Disc Harrow; two 7 ft. Binders, etc.

The Case 22-40 Tractor drives 32 x 54 Thresher with Windstacker, Feeder and Grain Handler; No. 20 Case Silo Filler with 40 ft. blower pipe; four 14 in. plows in hard ground, or five under favorable conditions; battery of Grain Drills or Harrows.

The Case 20-40 Tractor will handle belt and drawbar jobs similar to 22-40.

The J. I. Case Threshing Machine Company also builds:

Grand Detour Plows, all sizes and for all soils and conditions.
Double Disc Harrows for use with tractors.
Threshing Machines,—six sizes
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Road Graders,—three sizes
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Booklets, describing and illustrating any products above mentioned, furnished on request.

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TRADE MARKS REG. U. S. PAT. OFF. AND IN FOREIGN COUNTRIES
POWER FARMING MACHINERY

CASE 22-40
Kerosene TractorCASE 15-27
Kerosene TractorCASE 10-18
Kerosene Tractor

Look for the
EAGLE
Our Trade Mark

NOTE:
We want the public to know that our plows and harrows are NOT the Case plows and harrows made by the J. I. Case Plow Works Co.

The Printed Word

IN contrast with those tendencies towards concentration, which have marked most lines of industry of late years, must be placed the continued localization of effort in the printing industry. It is primarily a local undertaking and its units are for the most part, small and widely scattered. It is true that in the larger centres of population there has been a certain amount of concentration, and some city plants have reached large proportions, but against this must be reckoned the frequent establishment of printing shops in new communities. The press follows very closely in the footsteps of the first settlers, and often becomes an established institution long before any other industry sets itself up.

Numerically, therefore, the printing industry ranks rather high among Canadian industries, for there is scarcely a place of any consequence at all that does not possess one or more plants. The census returns distinguish between printing and bookbinding establishments and printing and publishing establishments. Roughly, the distinction is between what is termed the job-printing office and the newspaper office, the one being devoted exclusively to printing and the production of printed matter other than newspapers; the other to the printing and publishing of newspapers. In the former class, and for the year 1917 (the last for which statistics have been compiled), there were 613 establishments; in the latter class, 916 establishments, or a total for the two classes of 1,529.

Output over \$50,000,000 a Year

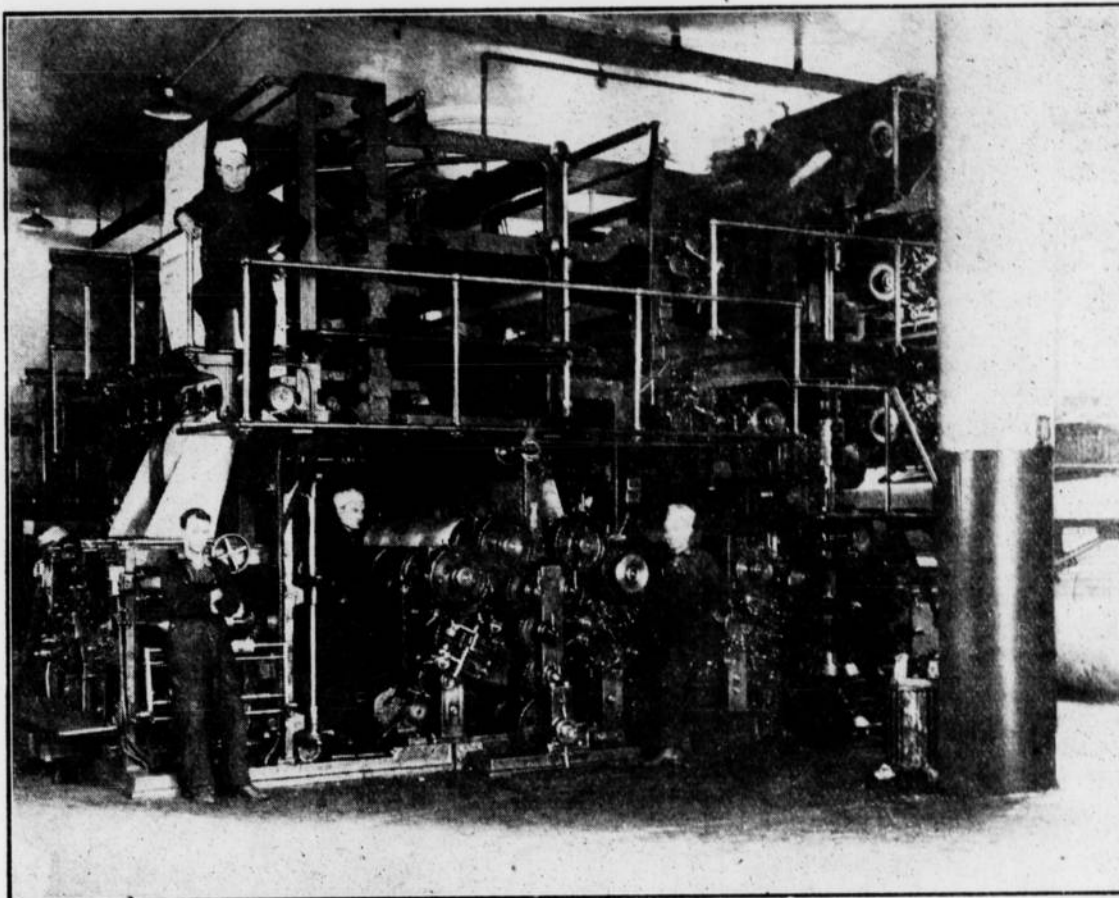
Other aspects of the industry may be set forth as follows, the figures again applying to the year 1917:—

	Printg. and Bookbinding	Printg. and Publishing
Capital invested	\$19,444,104	\$30,978,517
Employees on salary	1501	3,110
Salaries paid	\$1,946,948	\$3,472,690
Employees on wages	7389	9,692
Wages paid	\$5,150,974	\$7,521,861
Cost of materials	\$6,314,349	\$7,389,524
Value of product	\$19,457,746	\$31,453,622

The products of the printing press in Canada are varied, and in point of quality, compare quite favorably with the printed material of other countries. In first place come the newspapers, ranging all the way from the metropolitan daily with its circulation of over 100,000 copies, to the little weekly paper published in some small and remote village printing office and with a circulation of only a few hundred copies. The Dominion is well supplied with newspapers, very few communities of any size lacking such publications, and on the whole the standard maintained is a very creditable one.

There are today about 112 daily newspaper plants in Canada, scattered all the way from Sydney, N.S. to Nanaimo, B.C. This is a somewhat smaller number than existed in pre-war days, for the press has been passing through strenuous times, which have had the effect of driving a number of the weaker papers out of business. It is calculated that about 30 daily newspaper establishments have disappeared during the war period. Some were forced, on account of adverse conditions, to suspend publication altogether. Such was the fate, among others, of the Montreal Daily Mail, the Toronto Daily Times, and the Calgary Canadian. Others found it desirable to sell out to, or amalgamate with, their competitor, as was the case with the Ottawa Free Press, which linked up with the Ottawa Journal; the Brockville Times, which was merged with the Brockville Recorder; the Brantford Courier, which

Yearly Output of Printing and Publishing Firms Exceeds \$50,000,000—Costs Rapidly Mounting—Mortalities in the Newspaper Field—Books and Magazines Largely Imported—By W. A. Craik



The Most Modern Type of Newspaper Press.

The above is a reproduction of a photograph of the largest of the presses in the press-room of the Manitoba Free Press. These presses, which are the same as the ones which produce the other Winnipeg newspapers and all large newspapers everywhere, are rotary. They print from huge rolls of paper at a high rate of speed. The type is not used to print from. Stereotype plates of each page of the newspaper are cast. These plates are not flat, but semi-cylindrical, to fit the cylinders of the press. The one shown above is an octuple press, and can print 60,000 16-page papers an hour. It can also turn out any other number of pages desired at a proportionate rate of speed. A press of this kind costs about \$75,000.

was taken over by the Brantford Expositor, and the Galt Reformer, which was absorbed by the Galt Reporter.

Increasing Costs of Publication

To understand why the daily press has been driven in so many instances to suspend publication, or to arrange mergers, one must appreciate something of the heavy increase in the cost of production which has taken place. Bulk- ing largely in the expense bill of any newspaper is the white paper on which it is printed. In pre-war times newspaper paper was readily procurable at from \$30 to \$40 a ton, delivered. In the early years of the war its price did not advance, but towards 1916 the mills began to raise their quotations, and while the government intervened at the request of the press and fixed the price, manufacturers were able to show that their cost of production had gone up to such an extent that even the regulated price had to be raised from time to time, until, during the past year, it reached \$69 a ton. For the first six months of the current year \$80 a ton, f.o.b. mill, is the fixed price, with \$90 per ton in prospect for the last six months. With paper averaging \$85 a ton this year, it may be shown that a newspaper, such as the Manitoba Free Press, will have to pay over \$100,000 more for its newsprint this year than last, and the Toronto Globe something like \$65,000 more.

While the paper bill forms approximately 40 per cent. of the total expenses of a metropolitan daily, there are other items which will also reflect increasing costs. The wage bill has been steadily climbing and is today from 50 to 100 per cent. higher than it was before the war. Taxes have cut into profits heavily, and in all departments of operation there has been an increase. In the aggregate they represent a very serious drain on a newspaper's resources and unless a publishing company is

firmly entrenched in its field and is able to pass on the advancing costs to the advertiser and subscriber, it will find existence precarious.

The war years, and the 14 months since the war ceased, have formed a period of expansion for the press, both in the matter of circulation, and of advertising. The publication of war news stimulated circulation immensely and practically all Canadian dailies are away ahead of their pre-war figures. The Toronto Globe, for example, is now selling nearly 90,000 copies a day, as against about 55,000 copies in 1911; the Manitoba Free Press went up from about 40,000 to 80,000 copies in the same period; the Vancouver Province increased its sales from 22,000 to 35,000, and the Saskatoon Star from 2,500 to 25,000. These larger circulations have enabled managements to increase their rates for advertising so that the advertiser has been shouldering a goodly portion of the increased cost of production. Also, advertising has been more plentiful, the past year being a particularly active one in this department of newspaper work.

A Difficult Field to Enter

With the elimination of weaker papers and the building up of strong publishing organizations in each of the principal Canadian cities, it is becoming a matter of increasing difficulty and expense to establish new undertakings. The weeks of the past few years, particularly those of the Montreal Daily Mail and its evening edition, The News, and the Toronto News, latterly published as the Times, are object lessons that should not be overlooked by anyone considering similar adventures. Both papers were launched under the most favorable auspices; both enjoyed the services of highly-efficient staffs; both at their inception had apparently ample funds to put them on a paying basis; yet both, after swallowing hundreds of

thousands of dollars, were forced to give up the struggle for existence.

So many factors have to be reckoned with in newspaper publishing that it is practically impossible to give any estimate of what it would cost to establish a new daily paper. The expense of buying a plant and producing the first issue is as nothing compared with the cost of meeting wage bills and paper bills for weeks and months until advertising and circulation revenue begins to flow in. Even then, the cost of getting advertising and circulation, in face of the competition of other papers may be so high and so continuous that the day when income exceeds outgo may be indefinitely postponed. Always competition must be reckoned with, for established paper may suddenly decide to appropriate large sums to improve their service and thus upset all calculations of the new-comer in the field. Place of publication, character of paper, nature of opposition, all introduce such variable elements into the calculation that there is no way of estimating even an approximate figure that would represent even roughly what it would cost to establish a daily paper.

In the weekly newspaper field there are 1,073 papers in Canada, with 36 pages, published once or twice a week. Included in the foregoing figure would be a number of publications which are issued in the interests of a class, and also others in the literary, technical, and business fields. Deleting them, there are probably between 800 and 900 regular weekly newspapers, which would for the most part be published in small cities, towns and villages throughout the Dominion. These papers, like the dailies, have also had their troubles of late years, though they have not experienced suspensions to quite the same degree. They have quite generally passed along increased cost by raising their subscription rates. Formerly selling at \$1.00 per annum, the large majority are now listed at \$1.50 per annum.

Few Literary Periodicals

The roll of Canadian periodical publications also includes 246 monthlies and 20 quarterlies, with a smattering of semi-monthlies and bi-weeklies. The country is strong in its agricultural, religious, trade, and technical papers, but apart from a few deserving magazines, is weak in its literary publications. The reason for this is quite obvious. No trade or class papers issued in Great Britain or the United States, and dealing with conditions in those countries would suit the requirements of Canadian readers, whose demand is for news and information about their own country. On the other hand, the literary periodicals of the United States and Great Britain, with their wealth of illustration and entertaining reading matter, do have a strong appeal for Canadian readers and are bought in such large quantities that they reduce the chances of success of the domestic product, which has great difficulty in securing material of equal quality. Still, it is gratifying to note that a few Canadian weeklies and monthlies are meeting with success in their effort to develop the Canadian literary field.

As illustrating the extent to which Canadians purchase periodicals and magazines from Great Britain and the United States, the customs figures are illuminating. For the last fiscal year, that is, for the 12 months ending March 31, 1919, importations of newspapers and magazines from the United States were valued at \$2,028,807, and from

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Great Britain at \$154,804. These figures when compared with those of previous years, indicate a steady expansion of this business. Already for the first six months of the present fiscal year, importations from the United States were valued at \$1,156,827. It will be quite apparent that this trade will keep on growing, since it will be many years before there will be enough Canadian periodicals to meet the demand.

What is true of periodicals is also largely true of books. School books are manufactured to a considerable extent in Canada because the country needs texts peculiarly suited to its own requirements. These correspond to the trade and class publications in the periodical field. On the other hand, with a few exceptions corresponding to the little group of magazines, books of other kinds are not manufactured in Canada. Success in the book publishing business depends on quantity production and unless a book is assured of a pretty wide distribution, as would be the case with a public or high school text, it is not feasible to manufacture in the Dominion. There is invariably a tendency for original publication to gravitate to the larger markets of the United States or Great Britain, where the demand for books is more extensive, and where editions, by reason of their size, can be manufactured more economically.

2,500,000 School Books Annually

School-book production centres very largely in Toronto, principally because the Ontario market for school books was the first to develop. This gave the publishing houses there a start, and, as their plants grew, they were able to manufacture books for other provinces more cheaply than could the local printers in those provinces. There is some publishing of French-Canadian texts in Montreal; a few books are made in Halifax, and a limited number in western cities. Tendencies throughout Canada have been towards a greater and greater use of Made-in-Canada books, and it may be said that the large majority of the books used in the public and secondary schools are today of Canadian origin. In the universities, British and American text books are still in the majority. A rough estimate of the number of school books manufactured in Canada per annum is 2,500,000.

As with newspapers, so with books, the cost of manufacture has gone up enormously since the war started. Board for covers which cost \$34 a ton laid down in 1916, is now up to \$119 a ton; binding cloth has gone up from 11 to 36 cents a yard; binding thread from 9 cents to \$4.00 a pound; interlining from 3 to 14 cents a yard; paper from \$4.20 to \$9.75 per hundredweight. In many instances the cost of binding alone today is equal to the wholesale price four years ago. Yet a survey of school-book prices today certainly does not indicate that there has been a proportionate increase in the market value of these books.

Apart from school texts there are no many other books made in Canada, despite the fact that the imprint of Canadian publishers appears on many volumes offered for sale in the book store. The customary procedure is for the publisher to arrange for an imprint edition in London or New York and import his supply. As part of the larger edition manufactured for sale in Great Britain or the United States he is able to take advantage of the reduced cost of production which large-scale publication always secures. Only in cases where a very large sale in Canada is assured, in which case it probably would pay to print a real Canadian edition, or where a book would only enjoy a very limited sale outside of Canada, is it desirable to manufacture in the Dominion. For example, a novel by Ralph Connor which always sells many thousands of copies, would likely be made in Canada, while works of history or biography of peculiarly Canadian interest would usually be produced here.

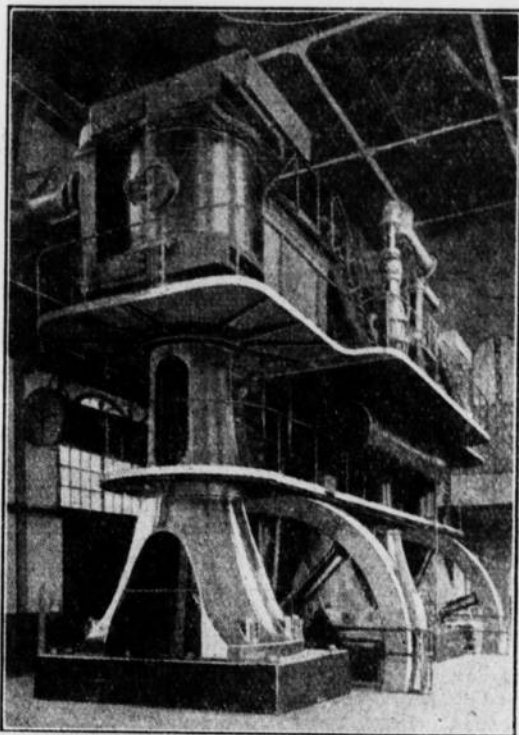
It would be a little difficult to arrive at a figure which would represent the average number of books, other than school books, produced in Canada each year. The number of titles and the size of the editions would vary considerably from year to year. Roughly speaking, the number of titles would not exceed 40 or 50 and the average edition would perhaps be a thousand.

Continued on Page 84

The Year in Steel

Developments Following the Armistice in the Iron and Steel Industry of Canada—By F. W. Gray

FOLLOWING the armistice, the iron and steel industries in Canada, as was the case in Britain and in the United States, passed through a period of uncertainty. Under the stimulus of the war, in 1917, the production of the blast furnaces



Air Compressor for a Blast Furnace.

and steel furnaces of Canada reached its highest recorded point. For some time preceding the armistice, however, the larger steel manufacturers, foreseeing the impending end of hostilities, had gradually lessened the production of munitions and proceeded to equip their plants for peace-time requirements. In this way, the Canadian plants had in large measure disposed of their war-time equipment at good prices, had made suitable amortization provision in their accounts to take

care of the special equipment installed for war purposes, and did not experience so severe a dislocation of their manufacturing activities when the war ended as less capable management might have occasioned.

As a result of war-time activities and prices the steel companies had accumulated comfortable surpluses, but here again the managements showed their wisdom in preferring to invest the money in additions and rehabilitation of plant rather than in the disbursement of dividends.

Just previous to the war the steel industry had met some very lean times, and the reversal in their financial position which the last five years has brought about is shown by a comparison of the relative value of their common stocks, as appraised by the Stock Exchange, and as shown below:—

	Dominion Steel	Steel Co. of Canada
Prices in 1913:		
Low	\$37	\$18
High	58	28
A year ago	62	65
End 1919	75	86½

The value of Canadian steel stocks, of which the two instances given are typical, is a reflection, not so much of their future prospects, which is of course something on which no person can be certain, but of the improved physical condition of the plant and equipment of the several companies, and the notable additions that remain as a permanent gain of the period of war activity. Large Extensions

For example, without going into great detail, new and up-to-date by-product coke plants have been installed by the Dominion Steel Cor-

poration at Sydney, by the Steel Company of Canada at Hamilton and by the Algoma Steel Corporation at Sault Ste. Marie. The large steel companies have all also strengthened their position by acquiring additional coal properties. The Dominion Coal Company has very

notably increased its coal holdings in the Glace Bay district during the war. The Nova Scotia Steel and Coal Company has recently obtained control of the Acadia Coal Company in the Pietou field of Nova Scotia, and both the Algoma Corporation and the Steel Company of Canada have strengthened their position by the acquisition of coal properties in the United States. The position of the steel companies in regard to fuel economy—which is the great problem in steel manufacture today—is very much better than it was before the war.

Another encouraging tendency of the steel manufacturers has been to increase the variety of their manufactured products. The new structural steel extensions of the Algoma Steel Corporation, the plate mill of the Dominion Steel Corporation are typical of what is taking place.

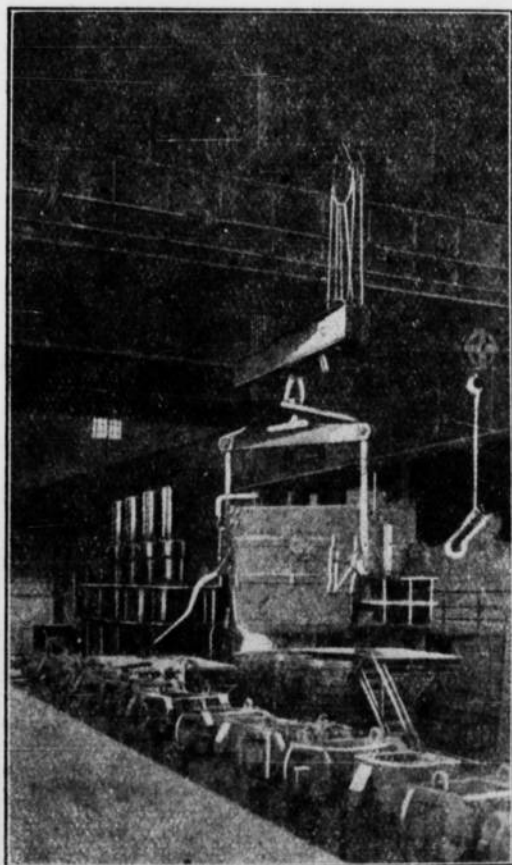
The growth of the shipbuilding industry is closely connected with the growth and permanence of our Canadian Steel industry. Steel shipbuilding plants now include the important and large shipyard at Halifax, the Nova Scotia Steel Company's old-established yard at Trenton, near New Glasgow; the numerous establishments along the St. Lawrence river, at Quebec, Three Rivers and Montreal; the yards in Toronto, Collingwood, Port Arthur and other points on the Great Lakes, and the very important shipbuilding developments on the Pacific coast. Now that a plate-mill, capable of rolling large size ship-plates

is about completed in Canada, the country is in a position to furnish within its borders everything necessary to build and equip steel ships for sea, including engines, boilers and accessories.

Consolidations Likely

It is in the logic of events to anticipate a consolidation of interests, including coal mines, iron-ore deposits, steel plants, and steel-ship building yards, along the lines that have been so successful in Britain, where it is often stated that the ore comes in at one gate and the steel ship goes out at another. It is

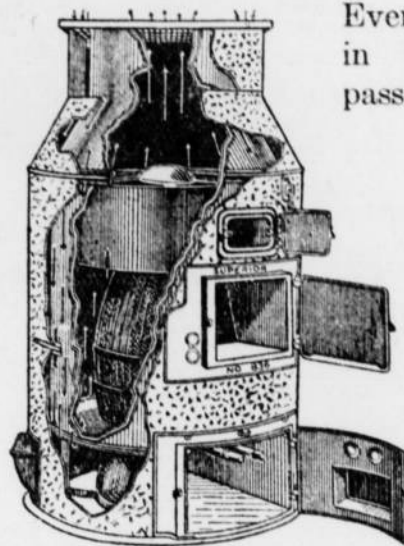
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Pouring Six-ton Ingots, Sydney Mines.

The Superior Pipeless Furnace

Nature's way of heating your home, the only sensible, efficient and economical method.



Every atom of heat generated in the furnace immediately passes into the house.

It can be installed in any ordinary cellar and never takes more than five feet square of floor space. No pipes to duck under or bump your head against.

"Think of this"—The coldest air in your house is the first to pass through the Superior Pipeless Furnace—this must and does give you an even temperature in every room.

Any handy man can install it in five hours.

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DIRECT to FARMER

WHEN WRITING TO ADVERTISERS PLEASE MENTION THE GUIDE

CANADIAN FISH

By Frederick William Wallace

IT is a good trade axiom to sell exportable products in the markets which will ensure the best returns, and to make use of products in home consumption which are cheaper and not so readily exportable. In other words, it is better to export beef, pork and mutton to markets paying the best price than to retain same for home consumption—especially so in Canada where we have a cheap and palatable substitute in the wealth of fish with which the Dominion is so generously endowed.

Canada's whole future depends upon the development of export trade and Canadian beef and pork has a world market, but a considerable quantity is retained for home consumption. If fish were substituted for a larger proportion of the meat retained, our exportable quantity would be considerably augmented and the financial returns to Canada increased by the exported meat and the home-consumed fish.

Canada possesses the most abundant fisheries in the world today. No other country can compare with us for variety of species indigenous to our waters, nor in the generally prolific nature of most of them, but Canadians cannot be characterized as fish eaters on a par with the citizens of other nations such as Japan, Great Britain, and Europe generally.

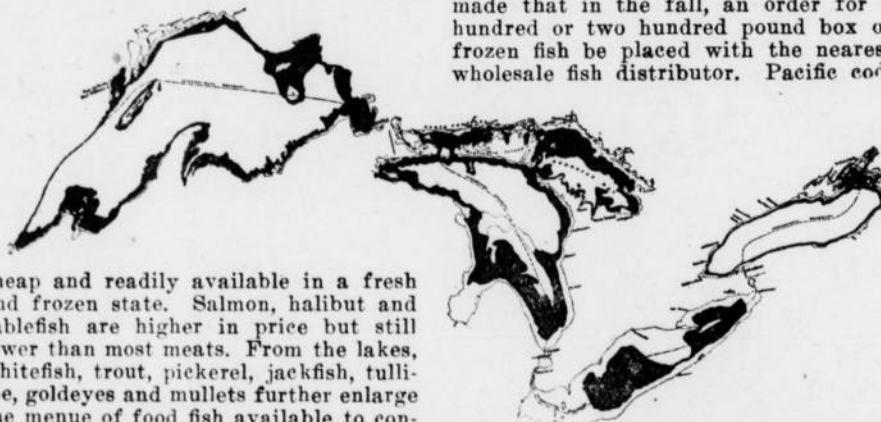
In the western provinces of Canada, the fisheries of the Pacific and the fresh water rivers and lakes of the West provide an abundance of food fish which are low-priced and palatable. Among the sea fish, grey cod, red cod, ling cod, soles, brills, plaice and herring are

cheap and readily available in a fresh and frozen state. Salmon, halibut and sablefish are higher in price but still lower than most meats. From the lakes, whitefish, trout, pickerel, jackfish, tullibee, goldeyes and mullets further enlarge the menu of food fish available to consumers west of Port Arthur. In addition to these fresh or frozen fish, smoked herrings, goldeyes, sablefish, salmon and Atlantic finnan haddies, a number of varieties of pickled fish, and canned salmon, herrings, sardines, pilchards, and chicken haddie are easily procurable. It will thus be admitted that more variety is available in food fish than in meats and the cost is relatively less.

The Japanese are a great nation of fishermen largely owing to the fact that they are primarily a fish consuming people, and for general all-round hardihood and physical fitness it would be hard to beat the Japanese. The Chinese coolie—performer of laborious tasks beyond the ability of the average white man—exists on fish and rice almost entirely. The Scandinavian peoples—the strong men of the north—are great fish eaters, and the Highland Scotch—the empire builders of brawn brain and indomitable courage—can be cited as another fish-eating race. In these few illustrations, the argument against fish as a nutritious and strength-sustaining food is dissipated.

Summer and Winter Supplies

While fish of all kinds are readily procurable in the cities and towns of the western provinces, our limited transportation facilities do not allow of a general distribution into the farming communities of fresh varieties. To persons thus situated, the suggestion is made that in the fall, an order for a hundred or two hundred pound box of frozen fish be placed with the nearest wholesale fish distributor. Pacific cod



Where Whitefish are taken in the Great Lakes
The Whitefish area is shown in black and is from 10 to 50 fathoms deep.

fish, flat-fish, herring, and lake whitefish, trout, pickerel, jackfish, etc., could be purchased in the manner and used throughout the winter months.

For summer consumption, it is suggested that pickled and canned fish be purchased by the barrel and case. Pickled cod and herring and canned salmon, pilchards, herring and Canadian sardines are the varieties suggested. Of the salmon, the pale fleshed "Chum" variety is the cheapest and contains the highest protein constituent. Canadian sardines are exceptionally high in food value. Canned chicken haddie is another excellent canned fish. The farmer's wife would find these canned fish excellent time-savers in preparing hurried meals during the strenuous days of summer, and far more sustaining and healthful than meat for field workers in the hot weather.

Thawing and Cooking

The cooking of fish plays a great part in its palatability and the following rules should be observed. In thawing out frozen fish, place it in cold water, or if time permits, bring it inside the house and allow it to thaw out naturally. Salt dried, or pickled fish should be soaked for several hours in cold water to remove the salt. The best plan is to place the fish in a pan under a dripping tap which ensures a constant change of water and carries off the salt. Salt fish to be prepared for breakfast should be placed in soak the previous evening. Fish will keep longer cooked than raw and a surplus piece of fresh fish should be cooked by steaming, boiling or baking to be re-heated when required.

Continued on Page 73

PREPARING the Spring seed bed is a quick, sure job for the Bates Steel Mule.

Its Crawler traction does not slip on the soft ground and therefore allows double discing and harrowing in one operation.

It also does this work at a fast speed, thus making a finer seed bed than is possible with most tractors.

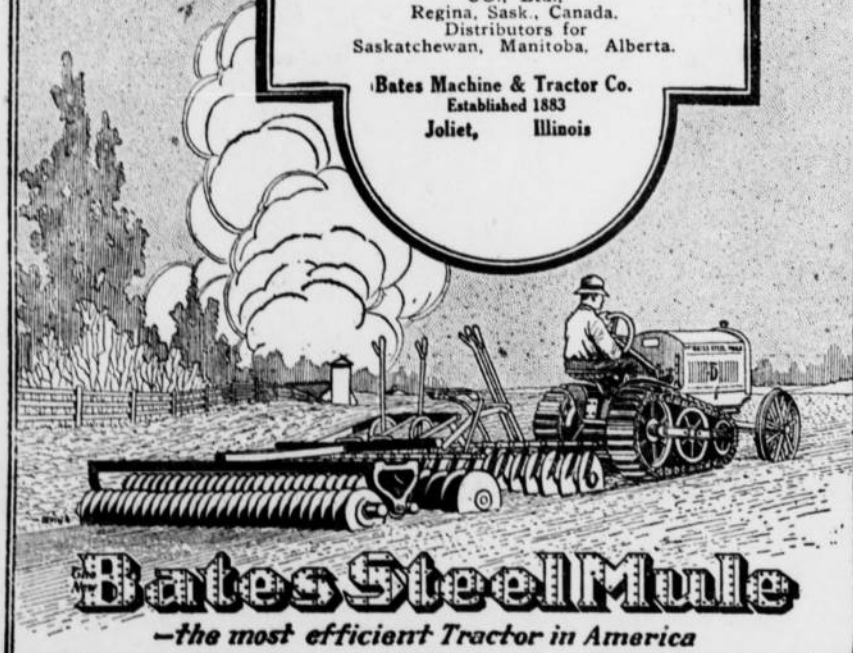
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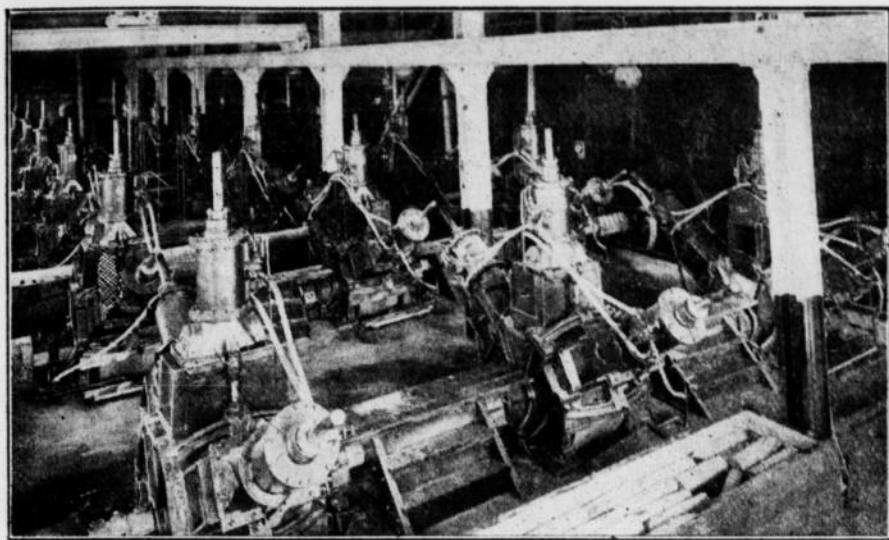
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Making Ground-wood Pulp.

The Pulp-wood is held against Grindstones by Hydraulic Pressure.

How Paper is Made

Spruce and Fir Mostly Used—Groundwood and Sulphite Pulp—Intricate Processes and Marvelous Machines Utilized—By J. Newell Stephenson

TO tell how paper is made in the space of a brief article is a difficult problem, but it will be possible to describe at least some of the more important and interesting features of the manufacture of Canada's most important manufactured product. Canadian paper mills manufacture every standard grade and many special varieties of paper, but the kind which makes up the greatest part of the production is newsprint paper. The annual output of newsprint is now at the rate of 800,000 tons, and within another year will be 900,000 tons, or more. It is this kind of paper which, doubtless, is most interesting to readers of *The Grain Growers' Guide*, because about 15 per cent. of the output is used for printing the news of the day in Canadian newspapers and the rest is exported, principally to the United States, at a rate which practically amounts to the shipment of \$5,000,000 of gold each month, with a consequent stabilizing effect on the rate of exchange. It will be appropriate, therefore, if this description is limited to the manufacture of newsprint paper although the making of other grades involve processes and machinery of a most interesting character which cannot be explained here.

The manufacture of newsprint paper begins with the tree, so that it is of the greatest importance to take good care of Canada's forests, whose spruce and fir form the foundation of the paper industry. When the wood arrives at the mill, either by floating down the rivers or hauled by rail, it must be sawed into blocks from two to four feet long and the bark removed. For newsprint paper this is usually done by tumbling the blocks in huge barrels made of steel-angle irons. Part of the barked blocks go to the groundwood mill and the rest to the sulphite mill, since newsprint paper contains approximately 80 per cent. of groundwood pulp and 20 per cent. of sulphite pulp.

Making Pulp on a Grindstone

In the groundwood mill the blocks are held by hydraulic pressure flat against a revolving grindstone, and the fibres are rubbed off. Everything that was in the wood—and often other things besides, remains in the pulp. The pulp from the grinders is mixed with water and screened through strainers to remove big slivers, knots, etc., and most of the water is then removed to make less

material to handle. In some plants the thick pulp is pumped directly to huge storage tanks in the paper mill or further watered and formed into sheets which are folded into bundles or "laps," containing about 35 per cent. dry fibre.

Wood is Cooked to Make Sulphite Pulp

The first operation in the sulphite mill is to chip the blocks into small pieces to facilitate the penetration of the cooking liquor. The liquor is prepared by burning sulphur and dissolving the gas in lime-water or in water which is trickling over limestone in a tower. The solution is bi-sulphite of calcium, hence the name "sulphite" for this kind of pulp.

The chips and cooking liquor are fed into huge boilers or digesters. The cooking is done by steam for about eight to ten hours. By this process about one-half the solid matter in the wood is removed, leaving only the comparatively pure cellulose fibre. A cord of wood yields approximately one-half-ton of sulphite pulp, while the same cord would yield about a ton of groundwood pulp.

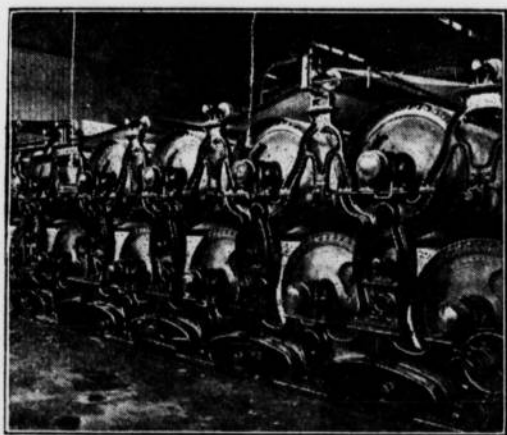
When the cooking is complete the chips are blown from the digester to a blowpit where they strike a plate and are broken down to a pulp form. The pulp is washed to free it from residues of the cooking liquor and the non-cellulose constituents of the wood. After being washed, the processes of the screening, thickening, etc., are practically the same as for groundwood pulp.

Paper Mill Is An Interesting Place

One would hesitate to believe that the milky-looking liquid passing the paper machine screens, through slots only ten-thousandths of an inch wide, could possibly be formed into a product which could be used for printing the daily news or for wrapping a parcel. Yet such is the perfection of the paper machine and the skill of the paper-maker that this wonderful result can be accomplished with individual fibres averaging only an eighth of an

inch or less in length.

In the most modern mills, where the production is kept high and manufacturing costs low, the pulps are simply run from the "slush" storage, in the proper proportions, into large mixing tanks, from which it goes to the paper machines. Many mills still use the original mixer, the beater, and neces-



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3292.—Seger or Victory	1.50	1.60
*3281.—Gold Rain	1.50	1.65
3293.—Garton's No. 22	1.50	1.60
3214.—Newmarket	1.50	1.55
3215.—Sixty-day or July	1.55	1.65

Above prices for quantities of 12 bushels or more; 3 bushels or more add 5 cents per bushel; less than 3 bushels add 15 cents per bushel. Registered Oats not sold in less than 3-bushel quantities. BAGS.—Add for bags containing 3 bushels 35 cents each extra, except those marked with an asterisk (*), which are 60 cents each extra.

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*3179.—WHEAT, Red Bobs:—	10 bus. or more	2 1/2 bus. bags	1 bus.
Brandon	\$8.90	\$9.00	\$9.25
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*3190.—WHEAT, Kitchener, Gold Standard	Brandon Price Per Bus.	Calgary Price Per Bus.
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3185.—Marquis, Gold Standard	3.45	3.75
89 P.—Marquis, Registered, Ref. 89 P.	3.85	4.15
91 X.—Marquis, Registered, Ref. 91 X.	3.55	3.85
3201.—Prelude, Gold Standard	3.80	4.05
3202.—Red Fife, Gold Standard	3.60	3.85
3189.—Red Fife, Dr. Saunders' Extra Early	3.80	4.05
3180.—Durum or Macaroni	4.50	4.75

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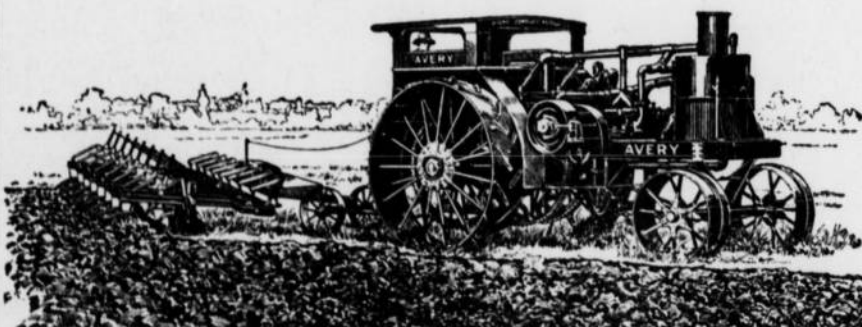
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sarily so where the pulp is handled in laps. In the beater the fibres are brushel and rubbed between a revolving roll and a stationary plate, a process which, besides mixing the fibres, improves their papermaking quality.

The mixed pulps or "stuff" is run into storage tanks, called stuff chests, in the machine room and pumped to a regulator which allows just the right amount to flow continually to the paper machine, the excess going back to the chest. Before the stuff reaches the machine it is again strained or "screened" to make sure the fibres are of uniform size, and extra water is added to get the proper interweaving of the fibres as the sheet of paper is formed.

The machine used for making newspaper, book, wrapping and writing papers is called the Fourdrinier, from the name of the two brothers who bought up and developed the original patent of Louis Robert, whose invention dates from 1799, only 120 years ago. In that time wonderful improvements have been made; modern machines are capable of making a sheet of paper 15 feet wide at the rate of 650 feet or more per minute. Some machines run more than 800 feet per minute and the paper is carried automatically from one end to the other.

A Marvellous Machine

The wire part of the paper machine is the most important, and the wire cloth is the most expensive item of supply, costing as much as \$800 to \$900 for a 160-inch machine, and lasting from three days to three weeks.

As the stuff flows out on the endless wire it contains about one part of fibre and 200 parts of water. It flows out on the moving wire at nearly the same rate at which the latter travels. No sooner does the fluid spread out on the wire than the water starts to go through. Before it has proceeded very far, however, the fibres, in settling, have had a chance to interweave. The fabric is not of uniform strength in both directions, because the fibres have a tendency to lie in the direction the stream is flowing, therefore, the paper is weaker across the machine than parallel to the direction of flow. Hence the paper tears more easily one way than the other. In slower running machines it is possible to make a paper of nearly the same strength in both directions.

Due to the speed of the machine and the limited length of the wire, only a portion of the water can drain through. An additional amount is drawn out by suction, applied through suction boxes with perforated tops, over which the wire travels. Before leaving the wire the paper passes between a pair of rollers, called "couch rolls," which press the fibres together and squeeze out more water. In some machines a suction roll is used at this point. It is this roll or the lower one of the pair, which drives the wire.

The paper is now made, as far as the interweaving of the fibres is concerned, but it contains about 90 per cent. of moisture. In order to improve the firmness, texture and finish and to remove more water, the sheet is passed through several pairs of "press" rolls, carried by fine woollen felts.

Most of the water is removed by evaporation, the paper passing over steam-heated drums called "dryers." This, of course, is expensive, so as much water as possible is removed by mechanical means, although the best

that can be accomplished is to deliver a sheet about 35 per cent. dry to the dryers. As the finished paper will contain from seven to ten per cent. of moisture, nearly two tons of water must be evaporated and the moisture carried off for each ton of paper. The steam for the dryers must be carefully controlled, both for the sake of economy and because the proper amount of moisture must remain in the sheet if it is to acquire the desired finish.

Finishing the Surface

The finishing, or smoothing of the surface, is done by the part of the machine called the calender, a stack of nine to 13 special steel rolls. The friction and weight of the rolls on the paper as it winds down through the stack really "irons" out the roughness, presses down the fuzzy fibres and gives a surface flat enough to take the ink properly from the type and cuts in the press-room. The endless sheet is then wound on reels and from these, in turn, is passed through a set of rotary shears that divide it into strips of the proper width and these strips are wound on cores in rolls of the correct width and diameter for the newspaper presses. Any breaks are carefully joined and a "flag" or signal is placed in the roll at that point to warn the pressman of some defect in the roll. Wrapping the roll is comparatively simple, yet this and the loading into the cars must be conscientiously and carefully done if the paper is to arrive in good condition.

Some newspapers require paper in sheets. To accommodate them the mill must have another department, where the paper from the rolls is passed through a cutter, whose revolving knife cuts the strip into pieces the desired length. The sheets are then counted by reams and packed in bundles.

For special effects and extra high finish is sometimes required. To get this, the strips are passed through the super-calender, a calender stack made up of alternate rolls of steel and compressed paper or cotton. A very high luster can thus be obtained, the paper often going through several times. The product is called "super news," and is largely used for pictorial sections of papers.

When it is necessary to produce a special color or some other effect requiring a fundamental treatment of the stock, the necessary materials, color, sizing, clay, etc., are added in the mixer or the beater.

For other grades of paper, the operation of the paper machine is practically the same as described, but such papers usually require special additional processes for the preparation of the raw material and the finishing of the paper. The selection of stock is of greater importance and more care is required at most points in the process.

The author would like to add that he will be glad to have anyone interested in the manufacture of paper ask questions, which will be answered if possible. And, finally, take care of the forest, it is Canada's financial anchor.

She Was Scotch

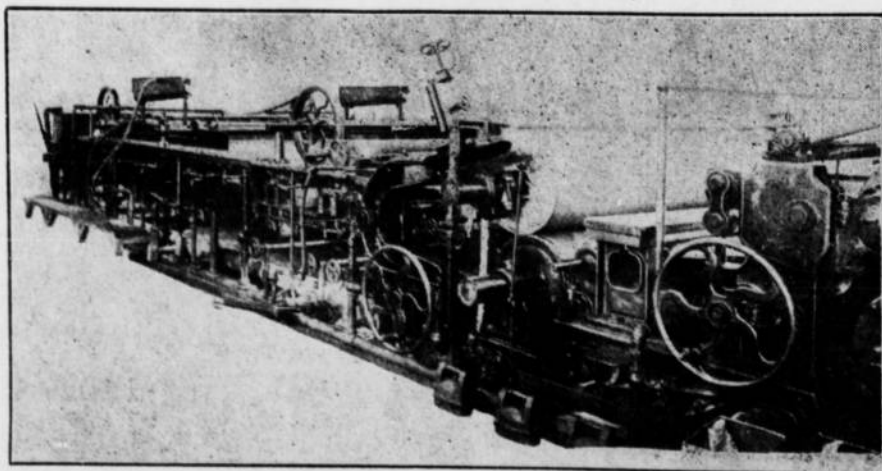
Tramp: "Could you give me tuppence for a bed, lady?"

Sandy's Wife: "Yes, bring it in!"

Eve: "Adam, darling?"

Adam: "What is it, Eve, dearest?"

Eve: "If you had had but one rib, would you have given it up for me?"



The Fourdrinier Part of a Paper Machine.

The paper is formed on the moving wire cloth. The water is removed by draining, suction, pressing and evaporation.



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Automobiles and Accessories

Motor Car Industry Developed from Embryo Stage to One of Canada's Leading Industries in Very Few Years—By E. H. Clairmont

THE automobile, motor truck and accessory industry in Canada, which ten years ago was non-existent or practically negligible, has during the last five years come to the front as one of the chief industries of importance in the Dominion of Canada, and at the rapid rate of progress and expansion, promises to outstrip many of the basic industrial pursuits of this country. The significance and importance of these statements can be better realized by noting the extent of capital invested, wages paid, sales executed, persons employed and number of cars manufactured during 1919.

Owing to the difficulty of obtaining exact statistics from Canadian automotive manufacturers of their production, etc., to be made public, it is, therefore, difficult to quote exact figures in this regard. The following preliminary canvass relating to automobile and other allied lines, compiled by the automotive industries of Canada which is in very close touch with the manufacturers, may be taken as reasonably authentic:—

Total capital invested in industry	\$ 50,000,000
Pay roll for year 1919	15,000,000
Total sales for year 1919	100,000,000
Persons employed during 1919	15,000
Cars manufactured	94,000

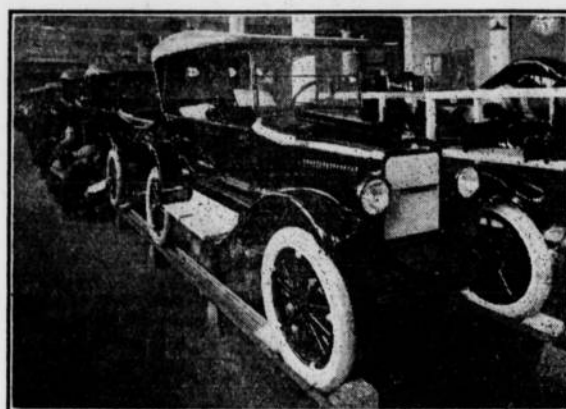
The Canadian automobile industry is practically confined to Ontario, yet not to any one locality in that province; both eastern and western sections are equally represented. At Chatham, Walkerville, Ford City, London and Kitchener in the western division and at Toronto and Oshawa in Central Ontario, enormous plants for the manufacture of automobiles and trucks are in operation. Walkerville and Oshawa particularly have come to the fore with large construction program during 1919. In one of the Walkerville units \$4,000,000 was expended on equipment alone. At this plant motor engines, transmissions and axles for the various models of cars made by the General Motors Corporation of Canada are manufactured and shipped to the assembling plant of that company at Oshawa. The site at Walkerville consists of nearly 300 acres of land. Among the numerous buildings erected on it, is a structure 600 feet long by 160 feet wide of reinforced concrete and brick for the manufacture of automobile engines. It is equipped with 750 electrical motors, the largest single working unit in Canada. A second series of plants is used for the production of trucks and tractors.

Construction on Large Scale

The construction program in Oshawa is also of large proportions. Approximately \$4,000,000 has

been expended on the erection of buildings for the manufacture of the Oldsmobile car by the General Motors Corporation of Canada at that place.

The factories in Oshawa include several units of the General Motors Corporation. These are the McLaughlin Motor Car Company the Chevrolet Motor Company, and the Olds Motor Works of Canada. The buildings being constructed there are of reinforced concrete and consist of a four-story assembling plant, 400 feet by 83 feet for the manufacture of the Oldsmobile car; a shipping building 400 feet by 83 feet, built with enclosed loading platform to permit of shipment being made in any weather; and a third structure three stories high, 300 feet by 80 feet, for the enamelling process.



View of the Final Assembly Room in the Willys-Overland Factory in West Toronto.

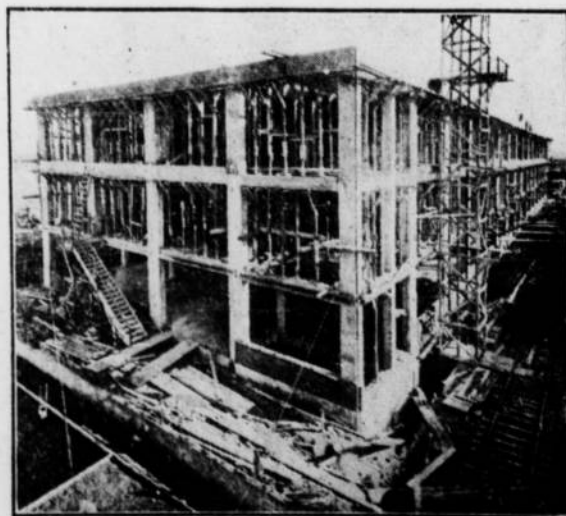
Hundreds of cars pass over this run-way every day to the testing department and finally to the shipping section.

Besides these large structures for the production of automobiles and trucks, block on block of workmen's houses have been erected by these companies at Walkerville, Ford City and Oshawa, during the past year. These residences, which are most modernly equipped, are being sold to the employees on a deferred payment plan at prices ranging from \$5,000 to \$10,000 each.

These facts illustrate that Canada is no longer looked upon as a field for the assembling of imported motor parts. The actual manufacture of the Canadian automobile within the Dominion is a reality and has become a clearly and definitely-defined business in itself. The made-in-Canada automobile is now a real Canadian production. The British government considers that a car comes within the preferential tariff if 25 per cent of the vehicle is made in Canada. This entitles it to be exported to the United Kingdom under the provision of the one-third preference as decided upon by the Imperial authorities. In most of the automobile factories the make-up is over 60 per cent Canadian by value and it will not be long before the 100 per cent Canadian car is manufactured. In fact one well-known car is now 95 per cent Canadian made.

Manufacture of Parts

In regard to the matter of automobile accessories, by degrees the number of parts that could not be made in Canada are now gradually being manufactured here. This is not the fixed policy of Canadian manufacturers who wish to be independent of foreign materials and unforeseen international trade complications but they desire to build up and increase the home industry by purchasing from Canadian factories. Besides it has very real advantages in other ways, such as assuring promptness in delivery, easiness in making adjustments,



Front View of the Assembling Plant of the Olds Motor Works of Canada, at Oshawa, Ontario.

Ford

—an institution

IT IS the good fortune of this institution to serve a large part of the total population of Canada.

The story of the Ford success is not new to Canada.

The place the Ford Car occupies in the business and social life of the country is firmly established.

How many realize that whatever success has been achieved by this institution is the result of its *ideals of service*?

The Ford Car was produced with those ideals in view. It was designed to give satisfactory, dependable service to the greatest number of people.

The Ford Motor Truck followed. Already it plays an important part in the transportation of Canada's products.

Then, the Fordson Tractor—no small factor in increasing the agricultural production of Canada.

The Ford organization has grown until it now reaches and serves every remote corner of the whole Dominion.

The Ford Motor Company of Canada, Limited, under normal conditions, employs directly over 4,200 people in Canada.

Seven hundred and fifty Ford Sales representatives have been established in Canada. These in turn give employment to 4,100 people.

This in turn, figured on a basis of five to a family, shows that Ford supports over 40,000 people.

There are also 2,300 other garages pledged to supply genuine Ford parts. These in rendering service to Ford owners employ large numbers of mechanics.

The men who produce Ford Cars are highly paid mechanics, the minimum wage scale at the Ford plant being \$6.00 per day. The yearly pay roll of the Ford Company in Canada is over \$4,000,000. This does not include the wages paid by Ford representatives to their employees, estimated at \$5,000,000. It does not include the wages that are paid by subsidiary companies and producers of materials for Ford Cars, all of which is due directly to the operations of the Ford Company.

That organization—the men who make Ford products, who render service to Ford owners—is one of the great institutions of Canada.

FORD MOTOR COMPANY OF CANADA, LIMITED, FORD, ONTARIO



Heider

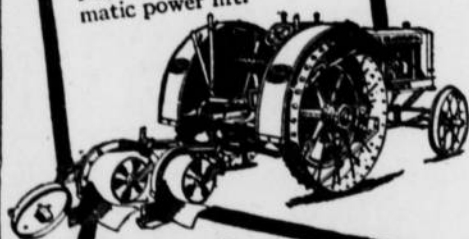
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and generally speaking of decreasing the cost when freight and customs duties are taken into consideration.

As an example of the made-in-Canada policy there has developed within the Dominion an almost innumerable number of establishments large and small devoted to motor accessories and parts, viz: nuts and bolts at Ingersoll, storage batteries, horns, lamps, tools, floor carpets, fan-belts, enamels paints, finishes, etc. in Toronto; tacks, nails and clinch buttons in Galt; transmissions, differential gears, radiators and various forged parts in St. Catharines; fenders and bodies at Oshawa; wood screws in Milton; grease cups, spring shackle bolts, spark plugs, seat springs at Windsor; rear axles, body springs, rims, etc., at Chatham; foot pumps, stamping, drop forgings, door hinges, door locks, bracket irons and various other details at Hamilton; tires and tubes in Toronto, Hamilton, Kitchener and Bowmanville, tops at Toronto and Walkerville; wheels at Windsor and Chatham; windshields for assemblies, hub caps, running board mouldings and brackets, cushion retainers, robe and foot rails, scuff plates, floor board, mouldings and various pressed steel parts in Walkerville, Toronto and Oshawa and many other little necessities in various towns throughout the province.

This list indicates how many and varied are the developments which enter into the production of a motor vehicle. The manufacture of it in many instances provides work for numerous factories in the production of required parts and accessories. Some factories of course make more of their car in their own plant than others but there is no car manufactured in the U.S. or Canada where all component parts are produced under the one roof. After perusing these details it is plainly evident that there is hardly an item in the construction of the automobile that is not or may not be produced in Canada.

Tire Manufacture Important

As an outstanding automobile accessory, the tire industry in Canada is easily the largest and most important. This business has grown phenomenally. The sales for last year were upwards of thirty million dollars in the Dominion. Tire manufacturers are importing raw material in large quantities and at present supply 86 per cent of all the tires used in this country. One of the largest American tire concerns has just begun the construction of a \$5,000,000 plant with workingmen's houses at Bartonville, a subdivision adjacent to Hamilton, Ontario, and will employ 3,000 men this summer in the manufacture of pneumatic and hard tires.

It is interesting to note that Canada ranks second in the number of cars operated in the different countries of the world and also holds second position in the total number of cars per capita. Farmers in Canada owned practically 50 per cent of the cars in 1919 and with the registration in the prairie provinces rapidly increasing each year this percentage will be materially increased.

The year 1920 will be the biggest in the history of Canada's automotive industry. Although the demand for passenger and commercial vehicles far outstrips production, yet manufacturers asserts that all orders can be taken care of providing that the fuel and steel shortage, which has become rather acute, does not continue far into the year. A few months ago the editor of the Wall Street Journal predicted that Canada was on the eve of prosperity and development not second to that of the United States following the Civil War. If the automotive industry is any criterion of that development, then indeed the motor car industry, which has developed from the embryo stage in a comparatively few years to one of Canada's leading industrial pursuits, may be considered a precursor of many future manufacturing enterprises.

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MINK, Prime Pale 18.00 to 10.00

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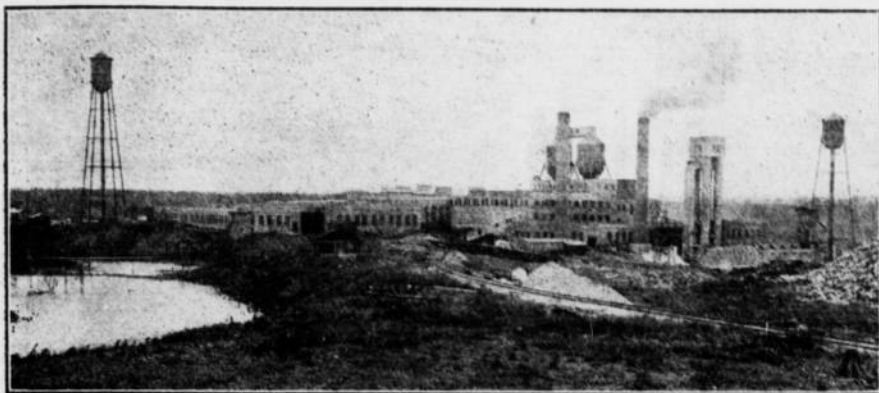
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The Lumber Outlook

Is the High Price of Lumber Justified?—Canada's Magnificent Forest Resources—By J. T. Ardley

WHAT is the lumber outlook for 1920? What will be the demand and how far will present and prospective supplies be able to meet it? How high will prices go and will the structural activity and general industrial expansion of the past year continue through the coming one?

These are pertinent questions being asked on all sides and he, who could offer a satisfactory answer or solution to the problem, would be hailed as "prophet, priest or king." Never was wood used for so many purposes as in the present age. In every wide-awake community there is a serious shortage of houses; factories that consume large quantities of materials from the forest were never busier and the outlook for the year 1920 is one of prosperity and expansion. There is a nation-wide shortage of buildings which, according to conservative estimates, will require at least five years to meet, and every consideration of self-interest and public service justifies going ahead with any projects in hand. Those who have been waiting for lumber prices to decline, have reckoned without their host and the trend is constantly upward. Never were stocks as low throughout Canada as they are at this moment and during the past season more lumber was shipped green from the saw than at any period in the history of this vast national industry. There will be little new material coming on the market until well into next summer and, in the meantime, there is scurrying for supplies on all sides. This is true not only in Canada but in every other country under the sun.

The belief exists in the best informed circles that present construction material prices will not decline but, on the contrary, may go much higher. Quotations are steadily advancing yet buyers have not been alarmed and find no barrier in disposing of what they acquire or have in hand. The reasons for this are faith in the soundness of constructive activity, the rapidly multiplying requisitions for wood goods and the application of the old economic law of supply and demand.

On a rising market business is always good and the general experience of contractors and other large users of forest products is that building and manufacturing develop unusual activity during such periods. With favorable weather conditions the cut this winter in the woods will be the largest of any season

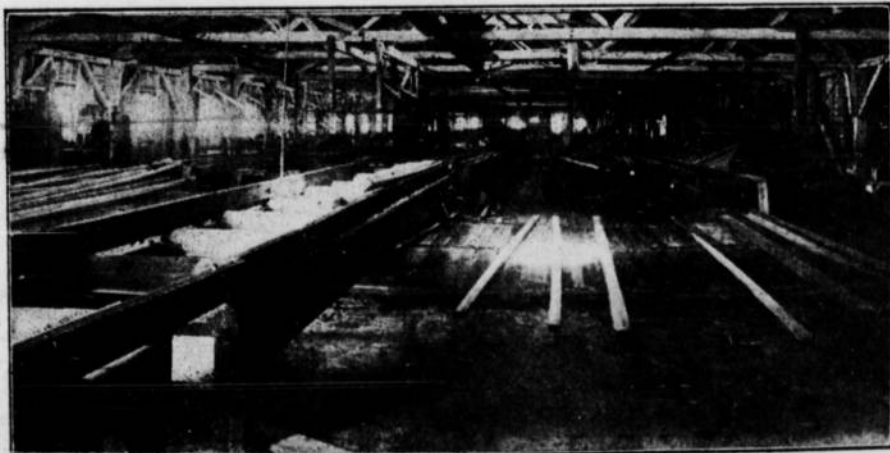
since the outbreak of the war. During 1919 it was from 25 to 40 per cent less than pre-war days. In the East many large firms have doubled the number of their camps and were help not so short at many centres, production would be further enhanced. Labor is as yet far from being as efficient as it was in the period prior to European hostilities, the cost of logging has gone up enormously and general administration expenses increased accordingly. Lumber has been one of the last commodities to aviate in price and it may be one of the last to descend. At no time in the history of the world has there been such a keen demand for lumber as at this juncture. The market is globe-encircling. Nearly every other material used in building has undergone a greater proportionate increase than lumber and this applies to brick, glass, tile, plumbing, electric supplies, etc.

It is impossible within the compass of this article to deal with all phases of the situation that present themselves, but the ordinary layman has some comprehension of how wages, food supplies, camp requisites and freight rates, as well as the shortage, inefficiency and general restlessness of labor have contributed to conditions with which the country is now face to face and will have to meet in the future.

What concerns the home builder, the contractor, the manufacturer and the storekeeper is the why of the present shortage in lumber, the cause of the unparalleled demand and the reason of the existing prices. The latter is probably the most vital question and on all sides one hears the query, are present quotations justified? This is what the consumer is asking. He even goes further and inquiries if the peak has been reached and if not when and where will it all end?

Better Conditions of Labor

It is well to remember that the law of supply and demand cannot be altered, and all lumbermen, big and small, are working today under vastly different conditions from what they were a few years ago, when the ordinary lumberjack was working for about ten cents an hour for eleven and twelve hours a day, living on the coarsest of food, his bed a bunk and his sleeping quarters frequently little better than a shack. Today the same worker gets from three to six dollars per day and even more. His food and lodgings cost, at least, twice as much



An Interior View of a Large Sawmill, Showing the Process of Cutting up the Log into the Finished Product.

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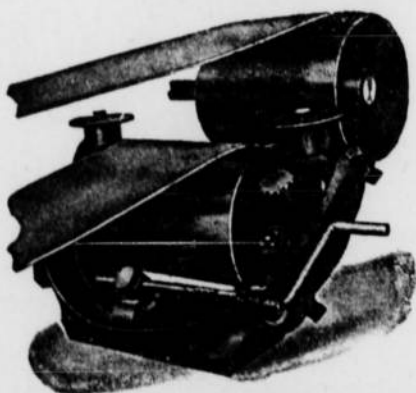
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as of yore and the eight hours a day is largely in effect. Manufacturers' costs have more than doubled in many operating centres; much more capital is locked up; transportation rates have gone skywards; labor is much more exacting than in any previous era; the demand is abnormal for wood and wood products of all kinds and production has been growing less every year since 1914.

Labor has been the greatest item of expense and supplies come next. Even with the figures which operators are receiving today for their output, the query crops up, is the present price of lumber warranted? In the west the state of the labor market, which closed down a large number of camps and thereby curtailed the ordinary supply of logs, resulted in the heavy advances in timber and thus the manufacturer was confronted with a rising tide.

The Foreign Demand

It is stated that American mills are able to supply only about fifty per cent. and, at the most, not more than sixty per cent of the demand in the United States alone. That country, as well as those of devastated Europe, South America, South Africa, Australia and even our own Dominion are making unprecedented calls on our forests. Of the fifteen hundred mills in Russia, owing to internal strife and chaos, less than fifty are in operation, while the great Muscovite timber reserves are in the hands of the Bolsheviks and are, therefore, unattainable. During the war nine billion feet of stumpage is reported to have been destroyed and on the western front of Europe twenty million acres of forests were cut down either by shells or for tactical reasons. France and Belgium lost over half a million homes and in England hundreds of thousands of houses are required owing to building being practically at a standstill for the last five years. Meanwhile, the demand for buildings of all kinds at home has increased enormously and there are very few communities in the Dominion, either hamlet or city, where the need of additional dwellings, stores, factories and warehouses is not felt. As a tangible result, rentals have greatly advanced and so have property prices. The average householder has become thoroughly acquainted with this personal problem, and requires no proof of the assertion 'outside of his own individual experience.' The world is slowly emerging from the effects of the five-year war but it will take a considerable time before financial and industrial conditions again become normal. The immense demand for lumber during the past eight or nine months will no doubt continue all through this year and how much longer no one can authentically state. It will last, at any rate, until the balance of supply and demand reach an equilibrium, and there does not appear to be any prospect of an early decline in material prices. Logically, as long as requisitions continues to outstrip supply, the trend will be upward. With very few exceptions all signs point to an era of unprecedented building activity for 1920. The construction program in many large centres is the greatest ever outlined.

Demand Unabated

While production costs continue to mount they do not at present appear to interfere seriously with consumption. Every sphere of activity evidences health and expansion and there are more enterprises of magnitude under way than at any other time. Few realize how important and far reaching the lumber industry has become in Canada, of the proportions which it has attained, and the foremost place that it plays in our national upbuild. The normal annual cut is between four and five billion feet, board measure, about one quarter of which is spruce. White pine come next, then Douglas fir, hemlock, cedar, etc. No less than \$180,000,000 is invested in the industry, with over 3,000 plants in operation, employing over 60,000 persons in the bush and mills, with a total annual payroll of \$50,000,000 in 1918, which is a great deal more today owing to augmented wages and high costs of supplies.

Never has the conservation and perpetuation of the timber wealth of

Continued on Page 47

The Milling Industry of Canada

It is as Efficient as Any in the World—By F. C. Cornell

DURING the crop year 1918-19, there were operating in Canada 709 flour mills, with a total capacity of 142,642 barrels per day. The great majority of these mills are small in size, having a capacity of 100 barrels or under, and are widely distributed throughout the various provinces of the Dominion. These small mills do mostly a gristing and local merchant business, the larger mills of this class shipping possibly one to ten cars of flour per year for export or for consumption in some other part of the Dominion. However, they afford local markets for wheat and local sources of supply for flour and feeds. Some of them operate only part of the year, owing to the fact that they derive their power from small rivers or streams on which they are situated, where there is only a sufficient head of water to keep them running steadily for a limited time during the year. This utilizing of water power is much more in evidence in the eastern provinces, the great majority of the mills in the West using steam, electricity and gasoline. Also these small mills may only operate during stated days of the week or whenever there is sufficient business to enable them to do so.

Again, the question of the local crop has a great influence on the activity of the small mills. That is, when there is a crop failure in the district the miller is generally forced to close down because he is situated in such a position that to haul wheat to the mill would incur heavy back-haul or diversion charges, which would so increase the cost that the mill could not operate on a paying basis.

In the table shown below, giving the distribution of the milling industry throughout Canada, all Ontario mills from Fort William and West are included in Manitoba, which would add to the capacity of that province some 15,000 barrels:—

Province	No. of Mills	Total Capacity	500 Bbls. and over.	300 Bbls. and over.	100 Bbls. and over.	Balance.
Ontario	388	74,833	21	12	92	261
Manitoba	50	24,330	8	6	9	28
Quebec	74	17,880	3	1	5	63
Alberta	51	10,912	6	2	10	33
Saskatchewan	64	9,385	3	1	20	40
New Brunswick	29	2,737	—	2	8	19
Nova Scotia	24	1,135	—	—	7	17
British Columbia	11	1,006	1	—	2	8
Prince Edward Island	21	422	—	—	—	21
Total	712	142,642	45	24	153	490

The great disparity in size and output of the mills as indicated above, though a very interesting feature, is not confined to the milling industry of Canada alone, and is possibly more in evidence in some other countries.

Some Milling History

The origin of the milling industry is rather vague. It is known, however, that wheat flour was produced as early as 2,500 B.C. No doubt the first "milling" consisted in pounding or crushing wheat between two stones operated by hand. As man became more expert in providing for his wants he chipped a round hollow in the lower stone and rounded out the top one to fit into this hollow. He next made a hole in the side of the lower stone which allowed the powdered wheat to pass out. Then came the revolving mill stone rotated by human labor, but later by horses, etc. Before the introduction of this type of mill no doubt nearly every family had its own mill, but shortly before the Christian era water wheels and windmills were introduced as a means of power. This leads to the establishment of flour mills which were able to supply many families. These mills, however, were still small and very numerous.

After this came the stone roller mills, operated by water or windmill, but later, about the close of the eighteenth century, by steam. Before the nineteenth century there was practically no international trade in wheat flour in any large quantities but early in the twentieth century the Hungarian millers devised the roller milling process which produced fine white flour from a hard quality of wheat. This process was adopted almost simultaneously in America and the product shipped to different European countries. In Eng-

land the demand for white wheat flour increased so rapidly that it began to look serious for the local mills which were still adhering to the stone mills, which, in conjunction with the soft variety of English wheat, produced a dark colored flour. This importation of white flour manufactured from a hard variety of wheat was causing the value of the home-grown soft wheat to depreciate materially. Also the importation of flour instead of wheat was a serious matter, as wheat offals were a very important item as far as stock food was concerned.

Great Developments in 40 Years

The result of this competition has been that in the last 40 years there have been great strides in the milling industry. In the modern mill of today once the wheat is received at the mill door it is handled by rapidly moving belts, elevated by buckets on endless chains or belts. It is cleaned and treated by machinery and fed by the same manner into the rollers. It is not moved by hand until it is shipped in the form of flour or offals. The process of manufacture has become entirely mechanical, a continuous stream of wheat being received, cleaned, conditioned and broken by being fed through rapidly-revolving steel rolls. Flour is separated from offal to any degree of fineness desired.

Canada's Flour Mills and Flour Output

If the total capacity of the Canadian mills, that is 142,642 barrels per day, was utilized to the full extent for the whole year the mills in Canada would be able to produce about 32,000,000 barrels of flour. However, the approximate quantity produced last year was only 18,225,000 barrels, being 56 per cent. of the possible production. This was partly accounted for by the small mills operating only part of the time, but the main reason is that the Canadian mills produce more flour than there

is a demand for locally. There have been no records during the past years which would enable anyone to arrive at the consumption of wheat and flour in Canada, but it is generally estimated at from six to six-and-a-half bushels, or one person consumes one-and-a-third to one-and-a-half barrels of flour per year. Therefore, to be able to supply the demands of the Canadian people the mills must produce at least 9,750,000 barrels of flour, or 43,945,000 bushels of wheat, but there was milled in Canada during the past year some 18,225,000 barrels of flour, or 82,012,000 bushels of wheat. This means that Canadian mills had to find a market outside of Canada for some 9,500,000 barrels of flour last year.

Last year Canada exported 9,663,657 barrels of flour to foreign countries. The following table will indicate the growth of the export trade in flour from Canada for the past 14 years:—

Canadian Flour Exports

Crop Year.	Barrels.	Crop Year.	Barrels.
1905-06	943,777	1912-13	4,373,872
1906-07	1,000,777	1913-14	4,666,267
1907-08	1,595,208	1914-15	4,897,453
1908-09	2,020,467	1915-16	7,897,453
1909-10	3,412,625	1916-17	8,024,602
1910-11	3,262,147	1917-18	10,826,433
1911-12	4,273,472	1918-19	9,663,657

When wheat is milled in Canada the offal produced in the form of bran and shorts forms a very important item in feeding poultry, stock and dairy animals. This is an important factor to be considered. This is of more importance to the raising of poultry and pure-bred stock and to dairymen who are not in a position to supply their own feed. Countries which have to import wheat and flour realize the value of this, and many European countries have adjusted their tariff to give the preference to wheat over flour. In the figures given above it will be noticed that Canada

A Rare Occurrence And A Unique Opportunity

It is not often that you can purchase House of McLean Pianos at reduced prices. This is a "One-price House" and our regular prices are too low to permit of constant price changes and fictitious reductions to induce sales. But for once the opportunity is presented in our



Alteration Sale

Crowded for space by the inroads of workmen tearing down and remodeling our premises, unusual steps have had to be taken to reduce our piano stocks. All lines in which we are heavily stocked have been generously marked down. There are no offerings of inferior pianos specially bought for sale purposes, but just the regular well-known, reliable House of McLean instruments.

Piano costs, like everything else, are advancing, and if you are contemplating the purchase of a piano, it will pay you to fill out the coupon and get particulars of our special values. Write today.



The West's Greatest Music House
The Home of the Heintzman & Co. Piano
and the Victrola.
329 PORTAGE AVENUE, WINNIPEG.

Clearing Heavy Stocks of
High Grade

Pianos

at
SPECIAL PRICES
from

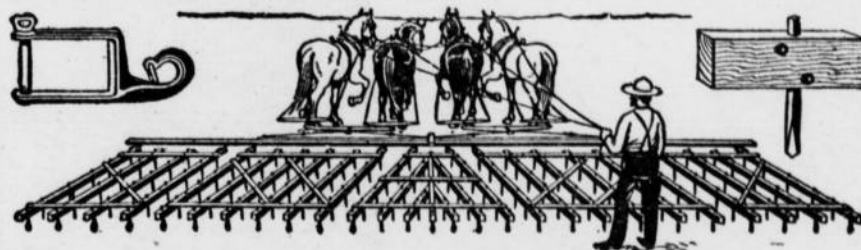
\$395 up

J. J. H. McLEAN & CO. Ltd.,
329 PORTAGE AVE., WINNIPEG.

Gentlemen: Please send me full particulars of your "Alteration Sale" Piano values.

NAME _____

ADDRESS _____ Dept. G.



Watson Wood Boss Harrow

The farmer who uses Watson Implements knows that when we say a machine or tool is "Watson Standard" it is built of the highest quality materials by expert workmen. Our Wood Boss Harrow is worthy in every way of the name of Watson.

The tooth bars are hardwood—nearly all oak. Every tooth is so rivetted that it cannot work loose or split the bar. The malleable teeth will stand all kinds of heavy strain and hard blows. True in quality, correct in design, and properly constructed, we guarantee this harrow to give you entire satisfaction.

SIZES:

78-tooth;	cuts 14 feet.	Weight, 186 pounds.
102-tooth;	cuts 17 feet.	Weight, 237 pounds.
150-tooth;	cuts 24 feet.	Weight, 400 pounds.
174-tooth;	cuts 30 feet.	Weight, 460 pounds.
222-tooth;	cuts 38 feet.	Weight, 525 pounds.

Full line of repairs for Moline and Janesville Implements; Moline Plows; Disc Harrows; Mandt Wagons; Manure Spreaders; Monitor Drills; Adriance Binders; Mowers and Rakes.



We Want More Muskrat!

We Need 100,000 More Muskrat!

The world's biggest fur operators look to us to supply their demands. Funsten assures you the top prices and very highest grading at all times. We have \$3,000,000 to pay for furs—you get spot cash by return mail. No matter where you live, ship to the

Fur Headquarters for the World

Funsten handles more Muskrat, Wolf, Mink, Opossum, Skunk, Raccoon, Civet Cat, Fox, etc., than any other house in the world! As season nears close, fur prices and qualities

will decline. Grading is all important now. Funsten grades highest. We need all your furs—not only this season, but next season too. Ship today!

Ship To FUNSTEN BROS. & CO., St. Louis, Missouri

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THE STANDARD BANK OF CANADA

MAIN OFFICE: WINNIPEG
435 Main Street.
Branch: Portage Avenue.
Opposite Eaton's.

Farmers that Build Now will Save Money

Any farmer contemplating the building of a house or barn within the next couple of years will save money by looking carefully over the farmers' book of

Money-saving Building Plans for Comfortable Homes and Serviceable Barns

This House Plan Book is FREE. Send for It.

THE GRAIN GROWERS' GUIDE, Book Dept., WINNIPEG.

more than doubled her annual exports of flour during the period of the European war. This record was established, however, under very abnormal conditions, but Canada's annual exports in pre-war days increased more rapidly than that of any other country.

The consumption of flour in any one country remains fairly even throughout the year, and as the storage capacity of the mills is not very large in comparison to the amount of wheat handled, therefore, the mills in Western Canada draw fairly steadily from the general stocks. In the East the mills using some or all western wheat endeavor to procure enough of the same in the fall to do them for the winter months, or until the opening of navigation the following spring, so as to take advantage of the much cheaper means of transportation, the Great Lakes route. The surplus wheat shipped by this route is held in store in the terminal elevators in the East, and the mills continue to draw as their requirements demand.

The milling industry in Canada is as efficient as any in the world. Experts are employed to cope with every phase of the business. The chemist plays an important part and with the assistance of men who have spent years in the milling business Canada can well be proud of the fact that Canadian flour, which has all the superior qualities inherent in Canadian wheat, is of as good a quality and as well made as any flour in the world. Canada can look forward to the time when importing countries can look upon Canadian flour as the "Standard of the World."

The Price that Children Pay

One of the most deserving post-war charities before the Canadian public is that undertaken by the Society of Friends (Quakers) to allay the wretchedness and mortality due to partial starvation among the children of Germany and Austria. The appeal for funds is made primarily to residents of German and Austrian descent but contributions are welcome from the public at large.

Both on account of their noble historic tradition and their attitude throughout the war, the Quakers are eminently suited to handle this fund. They are furnishing the money for its administration both on this side and in Germany from their own exchequer, and as Mr. Herbert Hoover's official American organization pays the freight and supplies purchasing facilities, every dollar contributed is certain to buy a dollar's worth of food.

It is difficult to overstate the need. Shortage of every essential in a ration has brought about an appalling spread of tuberculosis, rickets is almost general and vitality among children is so low that they succumb to the most trifling diseases. Clothing is so scarce that it is a common spectacle in Vienna to see children dressed in made-over potato sacks and infants clothed in tissue paper. Starvation has brought about an epidemic of immorality beginning with petty thefts and extending to alarming degrees. Bulletin 25, published by the American Friends Service Committee, 20 South Twelfth Street, Philadelphia, contains a plain, unvarnished report of the American social workers who investigated. It tells a story pitiable in the extreme.

Money from Canadian contributors is payable to Miss Emma Griesbach, Collingwood, Ont., or may be sent to the Philadelphia address above noted. There may be some feeling that money sent through American channels dwindles on account of the unfavorable exchange rates against us, but as Professor A. D. Baker, of St. John's College, Winnipeg, who has done so much in the interest of this fund points out, the high premium on American money ensures that as much will be purchased in Germany as though the money were sent direct from here.

Other societies are conducting similar charities for the succour of Polish and Serbian children. All of them have met with the heart-felt support of foreign colonies in the United States. American Mennonites have contributed very heavily. There are many individuals in the West who can and will give to this cause which aims to stay the decadence of a great race threatened by this menace which darkens the lives of its innocent children.

Maltum Stout

REGISTERED "More than A Drink"

Delicious! Refreshing!

Most welcome in the heat of the game. A protection against chills and colds.

BUY IT BY THE CASE
E. L. DREWRY LIMITED

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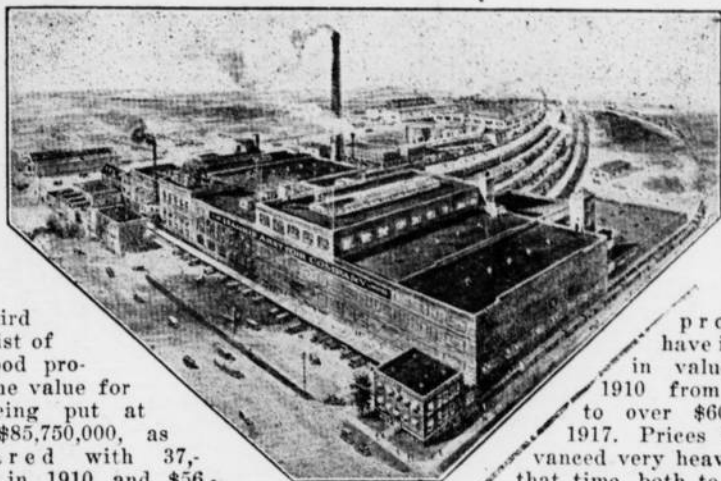
From Farm to Table

Continued from Page 12

In the United States this is almost purely a western industry. In Canada we find that it is very largely confined to Alberta in the West, and Ontario and Quebec in the East. The industry in Manitoba and the Maritime Provinces is negligible. British Columbia had no records in 1910, apparently, worth separate classification; but in 1915 the value of the products from their three establishments was nearly \$4,000,000. Butter and

Evaporated Fruits and Vegetables			
	1910	1917	49
Establishments	65	49	
Capital	\$510,065	\$1,300,779	
Wages	116,715	470,478	
Cost of materials	171,593	1,162,757	
Value of products	448,929	2,470,344	

Jams and Jellies			
	1915	1917	31
Establishments	12	31	
Capital	\$776,571	\$2,752,600	
Wages	127,594	394,617	
Cost of materials	515,895	1,783,769	
Value of products	934,286	2,997,782	



The Harris Abattoir, Toronto

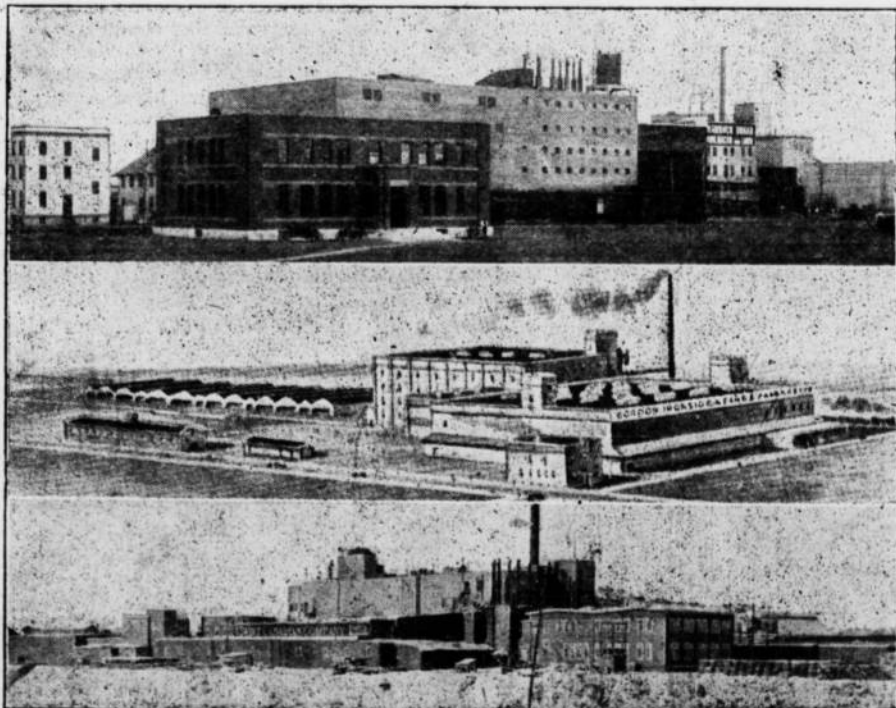
cheese stand third on the list of farm food products, the value for 1917 being put at about \$85,750,000, as compared with 37,250,000 in 1910 and \$56,250,000 in 1915. These figures are not at all complete; the difficulty of securing accurate statistics is always present to one who attempts to prepare articles of this kind. The statistics given officially refer to establishments employing five hands and over, and, therefore, make no provision for the large amount of butter made privately. The export alone of butter and cheese for the twelve months ending October, 1917, was valued at \$40,000,000.

An article which has made great advance in product, and particularly in export, in recent years is condensed milk and cream. In 1910 our total production of this was valued at only \$1,814,871. In 1917 this had increased to over \$8,000,000; and since that time there must have been a very heavy further increase, as the exports alone for the year 1919 were considerably over that amount, and Canada is a large domestic consumer.

The Canning Industry

Another Canadian farm food product, the supplies for which are raised almost entirely in the eastern provinces, is canned fruit and vegetables; and along with this we may consider jams and jellies, maple syrup and sugar, and evaporated fruits and vegetables. The respective statistics for those articles for the periods which we have been considering are as follows:—

Fruit and Vegetable Canning			
	1910	1917	118
Establishments	82	118	
Capital	\$5,512,474	\$8,354,097	
Wages	915,008	1,361,707	
Cost of materials	2,295,303	10,483,221	
Value of products	5,971,082	16,385,984	



The Three Largest Packing Houses in Western Canada
Upper, P. Burns and Co. Ltd., Calgary; Middle, Gordon, Ironsides and Fares, Winnipeg;
Lower, Swift Canadian Co., Winnipeg

Maple products have increased in value since 1910 from \$46,240 to over \$600,000 in 1917. Prices have advanced very heavily since that time, both to the producer and consumer; so that the total value at present would be very much more than the above. Sugar is, to some extent, a product of the farm in Canada, as the farmers in the counties of Essex, Kent, Lambton, Waterloo, Wellington and Huron, in the province of Ontario, would tell you. Cultivation of the sugar beet has also been attempted to some extent in Alberta. In the Ontario counties above mentioned, thousands of acres are devoted to the growing of the sugar beet. Three large refineries have been built in that part of the province: one at Wallaceburg, one at Kitchener and a third at Chatham. Together they use the product of over 30,000 acres of land. The value of the materials used in 1918 was over \$2,500,000; the value of the product is not stated separately from the cane sugar which the refineries there also manufacture.

There are various other "farm factory products," which might be enumerated, such as vinegar and pickles (of which nearly \$3,000,000 worth are produced), beef extract (\$262,606), tallow, etc., but those mentioned in the foregoing paragraphs are the chief ones.

Wholesale Dealers' List

The Fruit Commissioner at Ottawa announces that his office has just published a list of wholesale dealers of fruit and vegetables in Canada. It is free to any person who applies for it. Letters should be addressed to the Fruit Branch, Department of Agriculture, Ottawa.

It's All in the Savor

Windsor Salt is used by the makers of Prize Butter and Cheese throughout the country.

BECAUSE

it helps to make better Butter and Cheese and gives them that peculiarly satisfying flavor.

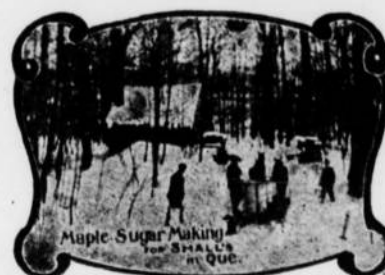
WINDSOR DAIRY SALT

is unrivalled for quality, strength and purity.

It is produced in the finest salt manufacturing plant under the British flag.

Windsor Brand is the salt in demand today—made in Canada by

The Canadian Salt Co.
LIMITED
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Maple Sugar Making for Small's, down on the Old Farm in Quebec

SMALL'S Forest Cream Maple Syrup and Sugar have a taste that lingers and smacks well of the old Quebec sugar forests.

SMALL'S Forest Cream Cake Icing and Bread Spread is delicious and wholesome on bread, and is ideal as a cake icing ready prepared.

SMALL'S Maple Products are made from exclusive formulas held by us for the past 80 years. May be had at all leading grocers throughout the world.

Refuse cheap imitations; insist on the original **SMALL'S**.

Paris, 1900.

Ottawa, 1900.



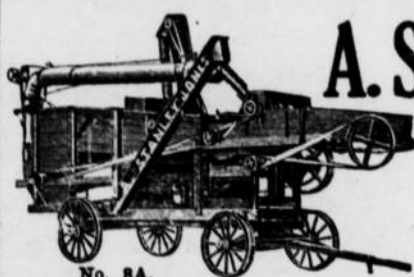
Highest Rewards, World Over.

SMALL'S LIMITED, Montreal, Que.



Old Dutch Cleanser

cleans Kitchen Utensils easily. It quickly cuts the burnt-in grease like nothing else can do. Try it on something hard to clean.



**A. STANLEY JONES
CO. LTD.
THRESHERS
SASKATOON - SASK.**

Are you going to leave your crop under the snow to be utterly spoilt by cattle, etc., and rotted away, or are you going to purchase one of our Threshing Machines now and thresh when the weather allows you to. We have it right on the spot ready and are shipping threshing machines every week, and have been doing so during the entire winter, and the one and only reason is because we have the machine that will work in the snow and will not clog up. Send for full particulars.

ALL FREIGHT PAID.

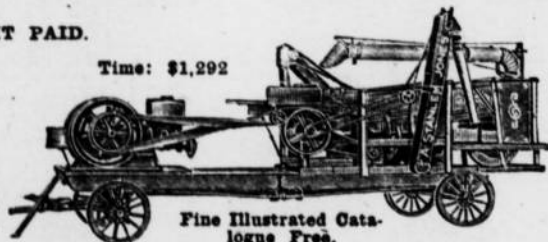
Cash: \$1,149

Time: \$1,292

No. 4A.—Same as above, but with Self-feeder instead of Hand-feed.

Cash: \$1,244
Time: \$1,387

Capacity: about 700 wheat and 1,200 oats per day.



Fine Illustrated Catalogue Free.

Efficient Handling of your Estate, Sound Advice in your Investments!

WE offer our experience as a Company covering 15 years and as much as 30 years' individual experience of directors, to farmers contemplating retirement.

A special department dealing only with the efficient handling of farmers' estates, is in charge of a carefully chosen staff of experienced inspectors.

Write us for further information regarding this department.

THE NORTHERN TRUSTS CO.

Victory Bldg., Winnipeg

Also at Regina, Saskatoon and Calgary



A Drumheller Mine.

Coal Mining in Alberta

Continued from Page 13

in the near future, lies in the south-eastern portion of Saskatchewan, in the vicinity of Estevan. In this locality there are large deposits of lignite coal, having a high potential value, but which owing to their peculiar characteristics have not been scientifically developed. The question of devising means for the utilization of this coal was taken up by the Research Council appointed by the Dominion government in 1916, and as a result of the efforts of the council the Lignite Utilization Board was established in 1918 and \$400,000 was provided to conduct experiments and establish a plant for the production of carbonized briquettes, the Dominion government voting \$200,000 and the governments of Manitoba and Saskatchewan \$100,000 each. The board consists of R. A. Ross, of Montreal, chairman, J. M. Leamy, of Winnipeg, and J. A. Sheppard, of Moose Jaw. The board is an honorary one, and the technical staff engaged consists of R. De L. French, engineer, Edgar Stansfield, chemical engineer, and Lesslie R. Thomson, secretary.

Experimental Work

Since the appointment of the board in August 1918, the work of investigation and experiment have been energetically pushed, most of the experimental work having been carried out at Ottawa in a special shed erected by the Lignite Utilization Board in connection with the fuel-testing station of the department of mines.

It is not necessary here to go into technical details. Suffice it to say that after inspecting all the chief briquetting plants on the continent the engineers found it necessary to devise a special type of retort, new in principle, and to develop new processes and new types of machinery. The method of carbonizing which has been adopted is to pour lignite dust over a series of baffle plates projecting from the sides of a chimney, and considerable progress has been made in the preparations for the erection of a plant at Bienfait, Saskatchewan. This plant will have a capacity of 30,000 tons a year, and when the commercial feasibility of the process has been demonstrated in actual operation, it is expected that other plants will be established. Lignite

briquettes are approximately equal in heating value to anthracite coal.

Results To Date

In a memorandum specially prepared for The Grain Growers' Guide on January 13, 1920, the secretary of the Lignite Utilization Board says:—

"The net results of the board experimental program is as follows:—

1. "The board is convinced that a design has been obtained for a commercial continuous flow carbonizer.

2. "The problems of drying and crushing present no insuperable difficulties.

3. "The problem of briquetting carbonized lignite is of far greater difficulty than that of briquetting anthracite dust.

4. "The board now feel, however, that the remaining difficulties need not prevent them in proceeding with the erection of the plant in Saskatchewan at the earliest opportunity.

5. "The question of binder is not one entirely of quantity or of quality of any single binder. It is a question of the best combination of binders that can be obtained at commercial figures. The board have been and are using hard wood tar pitch, coal tar pitch, asphalt pitches, petroleum pitches, starches, lignite tars and sulphite pitch.

"In view of the foregoing facts, which became known to the board in the Autumn of 1919, it has been decided to proceed with the erection of plant upon the opening of the season of 1920. The chairman had confidence in announcing in Winnipeg in October, 1919, that briquettes would actually be on the market by October, 1920.

Cheaper than Anthracite

"The question of the price of the finished briquette is one upon which the board does not care to commit itself at this juncture other than by saying that they are convinced that in all localities supplied the price to the consumer will be cheaper than anthracite coal. In 1917 the Research council prepared a report and the figure of \$7.00 per ton for the briquettes at the plant was submitted. The board would point out, however, that since this figure was prepared certain prices have advanced sharply, particularly the cost of binders."



A Train of Coal Trucks Coming from a Horizontal Shaft.

United Farmers of Manitoba

Swinging into Action

SINCE our last bulletin was issued four more constituencies have decided to adopt the plan of organization as suggested by Central. Springfield, Dauphin, Portage and Selkirk have met and heartily endorsed this plan and have already begun active mobilization for the drive on March 8. Springfield appointed Bruce Edie, Dugald, as organizer; Dauphin enlisted the services of H. P. Nicholson in this capacity. Portage decided to ask W. V. Anderson, Oakville, to supervise their organization; they have their six captains pledged and already at work. Selkirk are engaging Alan George, Springfield, to organize their district which is one of the largest in the province and most difficult territory to cover, but all these districts are going at the work with a determination that spells success for Independent Political Action and distinctly means "Goodbye, special privilege."

Bits from Round the Province

Tyndall, a recently organized local, is systematically undertaking the lining up of adjacent areas. They secured Mr. Hoey for three meetings recently and in spite of forty below zero added about fifty to their membership.

The Souris district secretary tramped eleven miles in heavy snow and facing a twenty below breeze to attend an organization meeting. There is no question about Souris making good.

Pine View local is interesting itself in the area immediately south and expects to send some of its officers down to assist in organizing in the near future. That is the way to victory for our cause.

Erickson local is surveying adjoining areas with a view to promoting organization.

The Polonia Educational Club of Hun's Valley is interesting itself in organizing a U.F.M. local for that community.

Howden local has run its membership up to 40, the largest in its history, and are making their motto for the year "Every one eligible a member." They meet socially from home to home among the membership thus making the U.F.M. a real social link. They are getting a car load of fence posts co-operatively. Since the new year, relief work for people in the dry districts of the west has occupied much attention, and 33 sacks of clothing have been shipped, valued at \$650. The acknowledgements indicate how necessary and how welcome the contributions were.

Co-operative Livestock Shippers' Convention

What promises to be an exceedingly interesting gathering is the convention of co-operatively livestock shipping associations to be held in Winnipeg on February 16 and 17, 1920. This is the first convention of its kind ever held in Canada, and if public interest is manifest in proportion to the importance of the subjects to be discussed, there is no question but that a very great deal of good will result from this conference. We note from the program that there is no provision made for long addresses, but the whole program is outlined so as to take the form of a round table conference in which every delegate is requested to give the experience of his district in the organizing and conducting of a co-operative livestock shipping association. We understand that a very great deal of interest has already been shown in this important convention. Accommodation is being provided for seating 400 delegates in the warehouse of the United Grain Growers' Ltd., at 145 Market Street, East, where the convention will be held, and it is fully expected that this number will be in attendance. Special arrangements have been made for private accommodation for associations or districts who are sending delegates and who have not already made arrangements for accommodation. Any co-

Conducted Officially for the United Farmers of Manitoba by the Secretary

W. R. Wood, 306 Bank of Hamilton Bldg., Winnipeg

operative shipping association or local grain growers' association sending a delegate to attend this convention should at once write the Livestock Department, Union Stock Yards, St. Boniface, giving the name or names of the delegates, and stating definitely whether or not they wish private accommodation arranged for. Any further particulars required may be obtained from any local secretary of a grain growers' association.

The Year Book

The 1920 Year Book has not been issued as soon as was hoped for. The delay has been occasioned by circumstances over which no one had control and our membership will be glad to learn that it will be circulated to every local in the province in quantities sufficient to supply each member, within a very few days of this issue of The Guide.

UNITED FARMERS OF MANITOBA POLITICAL ACTION FACTS FOR THE FIGHT

We are taking direct political action because all other methods have failed. Every other constitutional method has been tried and failed to bring results. Our suggestions, protests, petitions, resolutions and delegations have been denied. The big interests have always had the ear of the government. To us the government has turned a deaf ear.

We Are Not Adequately Represented

As a class we have never been adequately represented at Ottawa. Canada's million-and-a-half farmers have 32 farmer-members. Canada's five thousand lawyers have 79 lawyer-members. Generally, the lawyers are there to fight for the big interests.

In Administration Other Classes are Preferred

Under the present system, when a Board of Commerce is appointed it is composed mainly of lawyers, and the farm is not represented. When a Wheat Board is appointed—a board whose one duty is to handle the main product of the farm—the proportion of farmers is only three out of twelve. Grain men, millers, etc., can out-vote the farmer three to one.

Our Opponents are Strongly Organized

The privileged interests are organized solidly to retain the tariff. They are spending money by millions. They are backing the political organizations which they expect to serve them. They are controlling newspapers. They are doing everything possible to divide us and weaken our effort. They know it is a fight to the death and will spare no effort to defeat us. It is the time for us to stand together.

Success is Within Our Reach

Assiniboia elected Gould by 5,400 majority, Glengarry-Stormont elected Kennedy by 2,000. North Ontario elected Halbert by 120, and Caldwell. In New Brunswick, distanced his opponent by 5,596 votes. Organized Conservatism, Liberalism and Unionism in Canada are discredited. We can win simply by standing together. Four years ago, the Dakota farmers put up \$16 each in a great united campaign. Today they govern the State. We can well afford to put up \$6.00 to secure right representation at Ottawa.

The Alternative Cannot be Accepted

What is the alternative? It is continued and extended tariff. It is political reaction. It is the old political control. It is more millionaires, Flavell's, Beaverbrooks, etc. It is more congestion of population in cities. It is further handicap on agriculture. It is further exploitation of labor. It is higher cost of living. It is the well-being of the common people retarded a generation. It is we and our children, and our children's children paying dividends to the money barons who will have us at their mercy. The alternative is ruin.

The People of Canada are Looking to Us

The rank and file of the people of Canada are done with the kind of government we have had. They are ready for something better. They expect great things from the farmers' movement. If we can assure them of our honest and unselfish desire to clean up public life and to give a square deal, with no rake-off, they will back us to a man. Town, as well as country; the laborer, as well as the farmer; the common people of Canada are waiting for the new and better day. We believe it can only come along the line of such principles as those of the New National Policy. It is up to the farmers to lead in rendering this service to Canada.

Canada Expects this Day that Every Man Will Do His Duty

If you agree with the above line of thought you are called to back it with your personal influence. If you are a district captain you have a large responsibility in instructing and inspiring your workers. If you are a canvasser you must acquaint yourself thoroughly with the details of the plan so as to present it so as to win support. If you are a local director or officer you should give some time during the next month to preparing the way for the local canvass and to commending the cause in your local area. If you are a private citizen you have your responsibility in backing your faith with a suitable contribution to the campaign fund, and strengthening the movement for the future by enrolling as a member and becoming a reader of The Guide.

The Practical Proposal

The six-dollar proposition, covering \$2.00 membership fee, \$3.00 for three years' Guide subscription (of which \$1.50 is given to campaign fund) and \$1.00 direct to campaign fund, is designed to accomplish three things:—

First.—To meet all legitimate expenses of electing a candidate backing the New National Policy. This is the immediate issue.

Second.—To strengthen the local organization that its educational and social work may continue. The movement is for tomorrow as well as today.

Third.—To extend the reading of The Guide as the essential and official organ of the movement in Western Canada. The man who would know the cause must keep in touch.

It is earnestly hoped that the Year Book will be taken as a part of the machinery of our progress. It not only records the activities of last year and the minutes of the convention. It is designed to be helpful in stimulating local activities and in directing them toward the realization of our ideals. It is intended to stimulate the spirit of our people along the lines which the movement has followed throughout its history; and the more it can be practically used by individuals and by local boards for such purposes, the more fully the ends for which it has been prepared will be fulfilled.

The hearty co-operation of local secretaries, and local boards is sought in putting the book into the hands of all our membership as early as possible. To all local associations where there is known to be an express office, parcels will be sent by express. If a parcel is not received either by mail or express shortly, the secretary should communicate with central and see that they are secured and if the number received is insufficient, further copies can be secured on request.

U.F.W.M. Work

In case any local Women's Sections have been looking for further announcements of work of that department, it may be stated that the secretary, Miss M. E. Finch, since her attendance at the Alberta Convention, has been confined to her room by illness. The latest reports, however, indicate progress toward recovery, and it is hoped that by the time these words are read, she will be back at her place in the office and in touch with the work throughout the province.

Getting on the Job

One of the striking features of the present propaganda is the calling into active service of a larger number of individuals than ever before in the history of our movement. A dozen or more district organizers, a hundred and fifty or more district captains, each of whom has under him sixteen or more local canvassers, make a force of workers such as Manitoba has never had in active service of the cause at any past time.

That these workers will accomplish much for the movement in their organization and canvass may be taken for granted. There is every reason for assurance as to the full effectiveness of the plan of political organization adopted. But the secondary results will be no less gratifying. The workers themselves will be qualified by this service as more enthusiastic and fully equipped United Farmers than ever they were before. And in the districts where local men are being called to special service a stimulus will be given to scores of others in the direction of taking fuller part in the work than before. We may look forward to our organization being as a result more fully than ever, a working body.

It is our unchanging ideal for the future—live men, in live local groups, working out the details and carrying on the machinery of a live and effective democracy. In the meantime are you and your local doing it?

Campaign Hints

Is your local board in touch with your district captain helping him get the arrangements made for the canvass? That ought to be part of their job.

Why six dollars? Because it is worth that to the Manitoba farmer and because careful estimates of costs indicate that that amount will be needed.

What is the canvasser expected to do? To maintain and realize the six-dollar objective as a practical workable plan, to leave no corner uncanvassed in his half township and to report and remit promptly.

When is the event to come off? On March 8; bright and early in the morning, it is expected that everything will be ready to open fire. And the advance will be steady and continuous until every corner is canvassed.

United Farmers of Alberta

Local President's Message

THE past year has been one of steady growth and considerable development. To the casual observer this may not be apparent, but I would remind such of President Wood's quotation in the Law of Progress: "Incessant and minute change is one of the conditions of life, but great and sudden change is disease, while no change at all is incipient death."

The many functions of the union are becoming more fully appreciated, besides being an integral part of the organized farmers, it is looked upon and most rightly so, as the local parliament for the district, where we can discuss any matter affecting our welfare, whether it be spiritual, mental or physical.

A greater development in thought has taken place than at any other time, many men who once paid dues, because they are dues, now do so because they believe it a perfectly rational and logical thing for a farmer to support his own organization. They realize that the commercial and political emancipation of our class, is within our own hands; but we must work and pay in order to accomplish it.

This year our members, in conjunction with the other organized farmers of Canada, decided to take political action and carried out literally Abraham Lincoln's famous resolution, "Whereas, we need a ditch, resolved that we dig the ditch" and applied it to political matters.

This union showed progress when it decided almost without comment to raise the annual fee from \$2.00 to \$3.00. A resolution to the same effect was framed up and forwarded to the Central office to be presented to the annual convention. There is a good healthy spirit in the McCafferty union. There is still, however, a need for more active workers. We must consider ourselves as pupils, learning, and realize the natural disadvantages that an organization such as ours works under.

Our line of conduct should be to always try to think out a remedy for any abuse, rather than to spend time and energy complaining about it.

Lastly we must make a point of informing ourselves, trusting our leaders more and paying those leaders, who are able and in a position to acquire information and apply it, where it is a physical impossibility for us as a class to do so.—Herbert Spencer, president, McCafferty local.

Best Things Not Easy

The farmers of the Coronation district have been aroused to the needs of united effort, thanks to the good work accomplished by Mr. Wm. Irvine, of Calgary, who spoke here on the aims and ideals of the Farmers' Political Movement, and group government. The speaker handled the subject very capably, without mincing matters in any way. It is a great relief to hear a man expound the truths of the case without the old-time system of slander and mud slinging at parties or persons. The dawn of a new day in the political world seems close at hand, when a man throws a ray of light down the path, not of least resistance, but of more resistance, proving that with united effort, the people may force the issue of a clean and wholesome platform regardless of obstacles in the way.

Soon after Mr. Irvine's visit, we were favored with a very able and concise lecture by Mr. Flett, of the United Grain Growers, who gave a good straight talk on facts regarding the commercial end of our organization. The most important part of his speech was in regard to the home life of farm people. The speaker referred to the bravery of the women and children, who endured the rigors of our climate and hardships of homesteading, sometimes to the extent of doing without the necessities of life so that the husband and father might accomplish the tasks before him, and suggested that as soon as the farmer was able he should try and make the home as attractive as possible and employ all the modern and sanitary

Conducted Officially for the United Farmers of Alberta by the Secretary H. Higginbotham, Calgary, Alta.

conveniences possible to make life easier for these noble women who have braved the waves of adversity.

Such lectures as these are very badly needed throughout all parts of this country to induce the farmer to take his rightful place in modern civilization.—Frank Burns, secretary, Coronation local.

Carlton's Tenth Annual

What was probably the best meeting of its kind ever held by the above named local gathered at the hall for the transaction of the annual business. The large attendance of members and visitors, the free and able discussions of various subjects, the keen though amiable competition for offices indicated a very healthy organization life, and proof positive more eloquent than words that the work and decisions of the union are approved with the utmost unanimity.

The report of the secretary showed the union to be in fair shape financially, with only \$100 still owing against the new hall, while the announcement that the local had more than doubled its membership during the year was an item of satisfying encouragement to all. The meeting decided to purchase a large number of U.F.A. calendars and pen-nants from Central office, and our proposed new municipal herd-by-law was taken up clause by clause and some important amendments suggested for the consideration of our council.

In the election every office was contested by from three to seven nominees.

ship.—A. B. Grieve, secretary, Melgrove local.

Note:—In some districts a number of smaller locals are preferred and seem more successful than one large one. Local conditions and the type of local leadership must be taken into account, in deciding whether one large or several small locals is best suited to a district.—H.H.

Would Sell Horses

Many of our members are very seriously inconvenienced by the past two dry years and wish to raise funds. Many have some very useful types of horses which they could place on the market if they could get a reasonable price. Could you, through your knowledge of different districts, place us in touch with locals or districts where we could find a sale for some of our surplus horses. If you could get us some information about this we would be much obliged.—Thos. H. Noad, Box 118 Monitor, Alta.

Darwell Plodding

During the past year we have purchased twine and feed for the members to the value of \$335.25, and also, we handled hogs and cattle to the value of \$2,213.25. These are not large figures, but as it was our first year for the shipping, we hope to do considerably better this coming year. We have recently purchased a set of 4,000 lb. scales. These will be installed and properly housed as soon as the railway company establishes stock yards, which they promised to do some time ago.

We held a very successful basket social recently. The baskets, which

The Canadian Red Cross Society
Alberta Provincial Branch,
O'Sullivan Block,
Calgary, Alta.

The United Farmers of Alberta,
Lougheed Building,
Calgary.

Gentlemen:—

We enclose herewith receipt No. 9,649 for the sum of \$484.75 received from the United Farmers of Alberta as a contribution from the U.F.A. and U.F.W.A. locals, for relief in southern Alberta. I can assure you we are delighted to receive this generous contribution.

The relief work is making very heavy demands upon the resources of our society, especially in the matter of outdoor clothing and footwear, in fact it is almost impossible to keep up with demands for these articles. Again thanking you most heartily for this splendid gift, I remain,

Yours faithfully,
(Signed) MARY E. WAAGEN,
Vice-president and Honary Secretary,
Alberta Provincial Branch.

J. A. Cameron was re-elected president; Sergt. Summerbill, was declared elected vice-president after a spirited contest, while W. Lee, piled up a clear majority over his three competitors on the first count and will handle the books and finances of the local in 1920.

Note:—If more of our locals had annual meetings like the above, there would be less locals having to be revived every year or two.—H.H.

Large or Small Locals

By a general decision, Melgrove local has been disbanded and the members will join the Lougheed local. Groveland school house, the meeting place of Melgrove local, is only a little more than three miles from Lougheed, and since Lougheed union was organized in the spring some farmers became members of both locals, but generally speaking Lougheed is the more convenient meeting place for the members. After various experiments in forming new locals the district has gone back to the first meeting place of the parent institution in this district. I am strongly of the opinion that the multiplicity of small locals in a district is not in the best interest of the U.F.A., and that the step taken now will be a benefit and increase the present total of member-

were all artistically decorated, brought fancy prices, and the handsome sum of \$119.50 was realized, a welcome addition to the funds of the union.—E. Nichol, secretary, Darwell local.

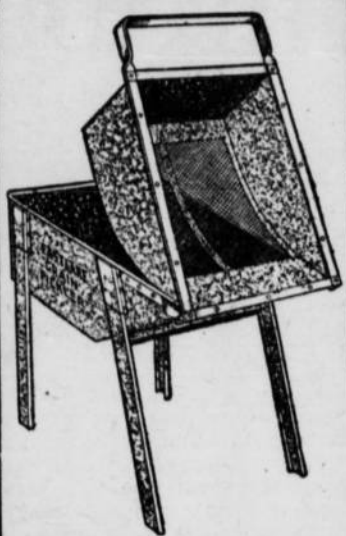
Lorraine Going Well

An estimated attendance of over 100 testified to the popularity and to the great interest which is being taken in the farmers' movements by not only members of the local union but by the public generally. The success attending the usual meetings is very encouraging to the promoters, and with regard to the social part of the program the results reflect great credit upon the ladies' social committee, who provide us with an attractive program of songs, recitations, and dialogues together with refreshments, thus contributing most successfully to the pleasure of the evening. We now count 30 members in our local.—John Haynes, secretary, Lorraine local.

Earlie Starts Well

Our annual meeting was held in Earlie hall with a very good representation of the members in the district present.

C. H. Henning was elected president for 1920 and Harry M. Pike was elected



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This device has been passed by the Fire Underwriters. Gas produced by the "RITE-WA" is burned as fast as made, hence it cannot accumulate and escape like other gases. Every farm home should have this system installed—it is labor-saving, safe, and convenient—Always ready and at your service.

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secretary by acclamation for the fourth year in succession.

We want every man and woman in the Earlie district to be a member of the U.F.A. or U.F.W.A. for 1920. If you haven't sent in your membership fee for 1920 please do it now.—Harry M. Pike, secretary, Earlie local

A Good Plan

The Berrywater local has at the present time 24 paid-up members.

During the winter months it is proposed to have an address delivered by some member at each meeting, followed by a discussion.

C. L. Oldfield addressed a recent meeting on the Farmers' Platform, outlining the farmers' movement from its initial stage and at our next meeting D. Sims is to enlarge on the subject.

Our activities through the year consisted of welcome to Messrs. Storey, Carruthers, Amey and Sinclair, members returned from overseas, and a picnic in the summer at which a branch of the U.F.W.A. was formed.

The ladies have an up-to-date local and we hope it will stimulate the men. They recently gave a successful chicken supper.—P. J. Haslam, secretary.

Wheatlands Hears Director

Wheatlands local had a record time on November 21. The men's local entertained the U.F.W.A. members. About 100 were present at the meeting to hear an address by the district director, F. W. Smith, on the political situation.

I. Parker, who is leaving for California and has acted as secretary for a considerable period, was thanked for his services and wished God speed, along with Mrs. Parker, who has been very prominent as secretary of the U.F.W.A. This local has plenty of young blood in it, and a young man was put into Mr. Parker's position as secretary.

Supper was served by the ladies, and a pleasant time was finished up with a dance.

Some New Locals

The following locals have been organized recently:—

Good Cheer local with J. B. McNalley as president and W. T. England as secretary, both of Cappon.

Cessford local, H. Nestor of Pandora is president of this local, and W. C. Griffith of Cessford is secretary. Cessford local commences with a paid-up membership of 34.

Pine Bluff local, M. Emerson is president and Ernest Lion Richards is secretary.

With the assistance of the Lealholme local U.F.A. we have organized at Airlie and have made a fair start for a small district. Our local is to be known as Airlie local.—Joseph A. Craddock, president; Herbert Butler, secretary.

I have the pleasure of reporting the organization of a new union at Pleasant View School. The officers elected are as follows: President, A. Todd; vice-president, T. Moore; secretary-treasurer, G. U. Horton. I am indebted to E. N. Walker, political director in Victoria constituency for advertising and arranging all preliminary work in connection with the meeting.—Andrew Rafn, director, East Edmonton Constituency.

The Ohaton local has been organized recently, W. G. Scheidagger is secretary and Norman Weir is president.

Director Stauffer, of Red Deer constituency reports the organization of two new locals, one at Evergreen, and the other at Kunsamo. Mr. Stauffer is confident that these new organizations will have a marked increase in membership.

The Samis local has been organized recently. Wm. E. Willett, the secretary says the outlook for this year looks promising and they hope to have a large membership. John E. Berglund is the president of this new local.

Director Forster organized a local at Favor recently to be known as the Favor local. President is L. H. Harmer, of Favor, and Alex. Carruthers, of Brawford, is secretary.

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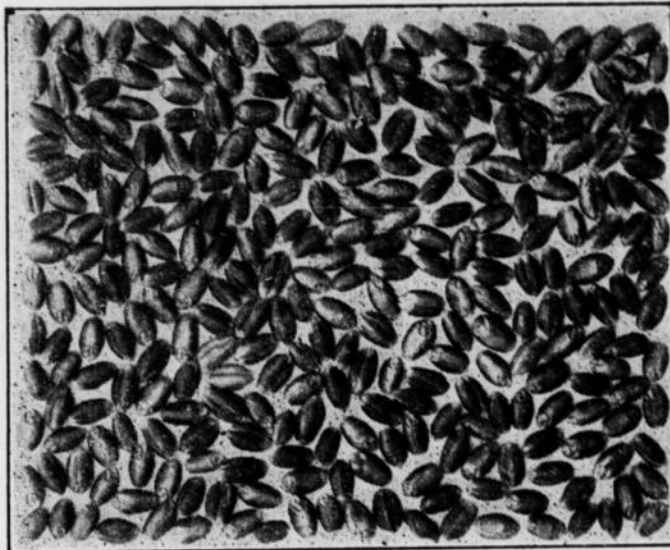
Beats out frost and rust.

Ripens from seven to ten days before Marquis. Will reduce the risk, attendant upon all crops while still standing, by from ten to fifteen days. Kernels hard, yielding flour of excellent color and high quality. Straw of very fair length and strength. The grain threshes easily.

In 1918 New Ruby yielded 40 bushels per acre on summerfallow, being the same yield as Marquis grown alongside.

The yield in 1919 was 33 bushels to the acre—no Marquis to make comparison.

Stock limited. Price: 2 bushels, \$24. Finest cotton bags, 70 cents additional.



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Red Bobs ripens from six to ten days earlier than Marquis.

Red Bobs yields higher than Marquis.

Red Bobs, as a milling wheat, is equal to Marquis or Red Fife.

Red Bobs reduces the danger from frost and rust.

Stock Limited. Price: \$11 per bushel in 10-bushel lots.

Cotton Bags additional at 70 cents each.

RED FIFE (Registered)

Old Standard Variety.

Price: First and Second Generation, \$8.00 per bag, bag included.

KITCHENER WHEAT

Seager Wheeler's Great Wheat

Price: \$3.50 per bushel. Finest cotton bags, 70 cents additional.

OATS

AMERICAN BANNER OATS

(Registered)

Price: Second and Third Generation, \$6.00 per 100 pounds, bag included.

ABUNDANCE OATS (Registered)

Price: First Generation, \$8.00 per 100 pounds, bag included.

GOLD RAIN OATS (Registered)

Price: First Generation, \$8.00 per 100 pounds, bag included.

Price: Second Generation, \$6.50 per 100 pounds, bag included.

DR. SAUNDERS' EARLY RED FIFE

Similar to old standard Red Fife, but has a larger kernel and ripens as early as Marquis. Price: \$3.50 per bushel. Finest cotton bags, 70 cents each additional.

MARQUIS WHEAT (Registered)

Price: First Generation, \$10 per bag of two bushels, bag included.

Price: Second Generation, \$8.00 per bag of two bushels, bag included.

MARQUIS WHEAT (Selected)

Good sample, fine for general crop. Price: \$3.50 per bushel. Cotton bags additional at 70 cents each.

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Saskatchewan Grain Growers

Advocates Co-operative Livestock Market

J. G. MOORE, of the Leaskdale Farm, Leask, Sask., has written the following very thoughtful letter to the Central office on a question which is of more than passing interest to the rank and file of the farming community.

Mr. Moore's letter has been inspired as the result of an article appearing in the Winnipeg Free Press, and is as follows:—

"Permit me to draw your attention to an article in the Winnipeg Free Press, December 16 issue, on page 11. I may state that since July last I have been urging upon our farmers here the necessity of a farmers' market day, although I have never urged the necessity of selling on the market by public auction. In my mind it is a very open question whether or not it is necessary to sell by auction, and even though it were deemed advisable, any bona fide stock owners should be permitted to effect a sale if possible on the open local market any time prior to the opening of the auction, and, of course, on any stock sold privately this way before the hour of auction the regular yardage and feeding fees would be charged, but no commission for selling. This idea, of course, applies to local shipping points such as Leask.

"For instance, Friday here, is usually considered to be preferable for shipping to Winnipeg, and the stock is nearly always brought in on Thursday, and I have been advocating the establishment of a market here for that day in order that any stockers, feeders, milch or dry cows light hogs, or any other class of livestock might be placed on the open market right at home, thus providing an opportunity for any farmer desirous of purchasing unfinished stock before any shipping expenses are added. The following day any unsold stock could as well be forwarded to the larger market as if there had been no market in the home town, and I venture to state that if this system were adopted, on many occasions there would be no stock left to ship out on the day following the market.

Cattle Buying

"I have taken the stand here that we have equally the same right to expect, or permit, our grain buyers to drive to our farms to buy our grain; that we have to continue to stand for the expense of stock buyers driving all over the country quite unnecessarily to purchase farmers' livestock. The farmer, in practically every case, is obliged to deliver his stock to the shipping point after it has been bought by someone who has been to the unnecessary expense of driving to his farm to look the stock over.

"Would it not be possible for our intelligent Western Canadian farmers to adopt practically the same system of marketing their livestock that they do of marketing their grain? For instance, a farmer wants to sell a load of grain. He does not wait for one of the buyers to drive out to his farm to buy it. He simply loads his grain and delivers it to the elevator or loads his car over the loading platform, as the case may be.

A Monthly Market

"Why not a market day, say once a month, in many of our towns in Western Canada in mixed farming and livestock districts to which the farmer incidentally takes his stock, and either sells it after he gets there as he does his wheat, or ships it co-operatively in the event of not being offered what he considers a fair price for his product. My contention is that such a system of marketing stock would be the very best kind of education for our small stock raisers, because of the opportunity of comparing prices and values right on their own local market. My opinion also is that it is a very sad mistake to have some inefficient incapable farmer appointed to handle livestock shipments for any community; especially if the local stock shippers would condescend to handle the stock of the district for the farmers in a co-operative way.

"I may state that my idea here was well received by the majority of the

Conducted Officially for the Saskatchewan Grain Growers' Association by the Secretary

J. B. Musselman, Regina, Sask.

farmers, by the merchants and the livestock shippers; but on account of the emphatic no of the president and the secretary of the local Grain Growers' Association, and with the influence of the operator of the co-operative elevator local, definite and well-directed action in this regard have been held in abeyance.

"Personally, I would be pleased to know that your organization was willing to take this matter up in every phase of the livestock interests in all Western Canada. I am more confident if the United Farmers and the Grain Growers of the three prairie provinces were to take up this question in a big way and put a little impetus behind the scheme, that it would be one of the greatest means of helping the livestock industry, that could possibly be devised.

"There are many blessings that could be derived from the inauguration of such a system of marketing which I have not mentioned here."

No "Cold-feet" Local

"The local is determined on a husky, hop-to-it policy and we ain't agoin' to let no grass grow under our pedal extremities, even if 40 below zero is considered the 'cold feet' season."

Such is the wind-up of an interesting annual report from A. E. Elderton, secretary of the Clearwater local.

The balance of the report reads as follows:—

"On Monday, December 29, the Clearwater local held its annual meeting. Clearwater is fortunate in having a fine band and most of the players are members of the local. At the annual meeting the session opened with several lively selections. President A. M. Wick gave a very able address, reviewing the year's work and suggested a healthy program for the coming year. Secretary-treasurer O. P. Mindrum then made his report, showing that during the year 16 meetings had been held, a Grain Growers' picnic and a rally. Total membership for the year, 49. Receipts for the year, together with proceeds from picnic, \$183.50; expenditure, \$111.30; balance in treasury, \$72.20.

"The officers elected for 1920 are: A. M. Wick re-elected president; L. E. Long, vice-president; directors: T. Closs and S. Lucksinger, elected for a term of three years; J. Nelson elected for one year; A. E. Elderton elected publicity secretary.

A program committee of eight members was elected as follows: Mrs. T. Closs, Mrs. L. Long, Mrs. H. Thompson, Miss E. Stewart, J. Matthews, H. Hagerup, J. Moore and A. E. Elderton.

"Three resolutions were passed: (1) 'That the government investigate further the requirements of farmers in the drought areas regarding seed and feed and aid farmers to secure any seed grain that may be obtained in the district, if necessary ship seed and feed in'; (2) 'That the government investigate further the needs of bachelors and renters who may be in need of relief'; (3) 'That the government be petitioned to take what action they deem best to aid farmers to eradicate gophers, and compel all owners, resident and non-resident, to poison gophers on their land.'

"Among several motions of purely local interest the following was also carried: That Clearwater local declare themselves in favor of provincial political action.

"An enjoyable concert then took place and refreshments were served by the ladies, after which the band 'spruced' set our toes itching several times again.

"The local has arranged for fortnightly meetings and all are bent on improving the winter months with debates, concerts, dances, etc."

A Vexed Problem

The secretary of one of our locals includes the following with his annual

report, which is an interesting statement of conditions which may not be peculiar to his district:—

"As I was making out the annual report of our local I thought it might interest you to have a little more information as to the conditions at our point. It may be of mutual help.

"I am not quite sure about the year but I think it was in 1908 when we first organized a local here. We got upwards of 60 members and for a time we had a pretty live association. Eventually interest seemed to die out, and looking back over that time I think the greatest obstacle to a successful local here is the mixed nationality of the people in this district. There are only about 20 per cent. English-speaking, and so far we have not been able to get a good, live official amongst the Galicians, and it is not lack of trying. We chose, as we thought, the most enthusiastic amongst them and made him vice-president. But it does not seem to have made much difference. I can see the old apathy coming right along into the meetings, and I am sorry to say I do not see the remedy.

Endorse Political Activities

"I am quite sure the political activities of the association would be fully endorsed by these people if they understood better. But as it is now I know the minds of these people are being poisoned by a few partisan Liberals of Mr. Mothewell's type who are members of our association. Then again there has been a large Galician church built here and with the church has come a considerable influx of these people, practically all land changing hands is being bought by these men. At the recent school elections there seemed to be an organized effort to place Galicians on all boards. As a consequence there are minorities of English-speaking residents without any representation on the school board, which has caused a certain amount of soreness, particularly as a number of these trustees cannot read or write English and scarcely speak it, so, therefore, are hardly capable of understanding the school act. So you see there exists a certain suspicion of each other that does not help in creating a good active local."

Meetings, Socials, Etc.

H. Cole, secretary of the Macrorie local writes:—

This association held a very successful social evening and dance on Thursday. We had the largest attendance of any entertainment that has ever been held in Macrorie; between 350 and 400 people being present.

A good program was given, of which our district director, W. T. Hall, of Surbiton, had the leading part, who reviewed the work of the Saskatchewan Grain Growers and pointed out the improved conditions that had been brought about through the efforts of its members. He also spoke on the New National Policy, and explained that it is not a class movement as some like to call it, but the only true democratic policy for Canada. Following the program a lunch was served, after which the hall was cleared for dancing.

Nulli Secundi

Jas. R. Pett, of P'apot, secretary of the Nulli Secundi local, writes:—

The annual rally of the Nulli Secundi local G.G.A. was held at J. J. Yorks, on the 31st of December, 1919. There were over 100 members present. Supper was served at 7 o'clock by the ladies of the Women's Section; everyone doing full justice to a meal that could not be surpassed.

After supper a whist drive was held; eight prizes being awarded. Then followed a lengthy program consisting of recitations, musical selections and songs, some of which were composed by a member, and were highly appreciated, especially the one dealing with the Assiniboia election. Dancing commenced at two o'clock, which was kept up until daylight. Everyone present agreed that it was the Best Yet.

Working Together

According to a communication received from Chas. Hailstone, secretary

of the Ceylon Grain Growers' Association, the Trail and Ceylon locals met recently and passed resolutions to amalgamate, which was adopted without dissent, each meeting being well attended.

Each local appointed a committee of three to work in conjunction with the secretary and by this arrangement it is anticipated that they will be enabled to erect a warehouse, where goods can be stored which have been purchased by members at a distance. This arrangement will also lessen the work of the secretary, whereby he will be more at liberty to push the work of the organization and increase the membership, which it is expected will reach 250.

An idea of their present activities can be found in the fact that this week I sold three ears of oats for seed to the members, in 48 hours. An office has been secured in the town, in the best position, which has already become a real Grain Growers' centre; and I feel confident that in a short time we shall have one of the best local branches in Saskatchewan. We are with this thing to stay and once we are on a proper footing we shall forge ahead.

Graham Hill Local

R. J. Lander, secretary of Graham Hill local, which was formed in June, 1919, and have a membership of 30 and still growing, writes:—

At Range View Schoolhouse, on the evening of December 23, a very enjoyable evening was spent by both young and old in witnessing a sketch presented by the Round Grove Dramatic Club, and hearing a dialogue by the children of the Round Grove School.

The great event was the visit of our old and esteemed friend Santa Claus. The children gave him a royal welcome, and by the laughter and chatter evidently he pleased all of them by his gifts.

It was also made the occasion of a presentation of \$25 from the members of the local to Maurice Holmes, a returned soldier of the C.E.F. France, a son of one of our members.

Keppel Community Club

According to a report from the secretary of the Keppel local, its members are getting together in a community way with such apparent success that the story of it is worthy of being read, marked, learned and inwardly digested by others desirous of making their meetings attractive and interesting. C. E. Hulett, secretary of the local, who sends the report, says:—

"The Grain Growers of Keppel pulled off a successful get-together meeting and oyster supper on January 16. During the evening the convention delegates were appointed, the choice falling upon the president and secretary: C. E. Hulett and H. B. Jackson.

"The goddess of poetry and song was especially summoned when the audience joined in the opening songs. Harry Bell, manager of the Keppel Co-operative store, carried his audience on a thrilling journey into the northern wilds, while reciting lines from the carols of the Red-coated Riders of the Plains.

"W. R. Vonlunen rushed the audience through cascades of fun and laughter with his spirited songs. The applause that greeted the effort of Mrs. C. E. Hulett, when, in appropriate costume, she recited the Reflections of an Ancient Maiden Lady, is still ringing amongst the rafters of the old school and will ring in the hearts of those present much longer.

"Reg. Martin, J. Winter, C. E. Hulett and R. Carr, contributed in song and story to the meeting's success.

"The series of debates being arranged between Keppel and Normanville Associations, not being sufficiently developed to reach the program stage, a spirited spelling match between married and single men was substituted; with the married men second best in the war of words.

"An intermission with cards and games followed, until the married men—who were sponsors for the entertainment—served up the oysters and other refreshments.

"The association plans a series of these community entertainments, and if they follow the lead of the initial program the results will more than justify the thought and energy expended."



This is the Story of a Man

a farm, and a book. The man is John Bracken, Professor of Field Husbandry, College of Agriculture, University of Saskatchewan, Saskatoon. The farm is the Experimental Farm at that institution. The book is Crop Production in Western Canada, written by Prof. Bracken, and just off the press.

Crop production in Western Canada fills a long felt want for an authoritative book by one having a thorough grasp of the variety of climatic and soil conditions in Western Canada. It is a book of 456 pages. It contains 15 chapters and a useful appendix. Three chapters of an introductory nature lead up to the discussion of the chief crops of Western Canada. These deal with the importance of good seed, the choice of crops and the principles underlying plant growth,

subjects fundamental to successful crop production. Then follows ten chapters each dealing with a separate crop or group of crops. Wheat, oats, barley, flax, rye, peas, root crops. The two last chapters in the book are contributed. One is entitled Insect Enemies of Field Crops, by Norman Criddle, field officer of the Dominion Entomological Branch; and the other, Diseases of Potatoes, by Paul A. Murphy, B.A., M.R.C.S.I.

Take Wheat For Instance

Crop Production in Western Canada tells the western farmer all he wants to know about the crops in which he is engaged in producing. Take, for instance, wheat. Why is it the most highly-esteemed food plant amongst those people whose standard of living is the highest? Why does wheat bread "rise"? Where is the world's wheat crop grown? Where does Canada stand amongst wheat-producing countries? What do we know of wheat in ancient times? What are the different classes and types of wheat? Wherein do the Durum wheats differ from the bread wheat? How do they compare in yield? What are the comparative milling and baking qualities of the different varieties of wheat? Why are the Bluestem wheats of the Dakotas not suitable for Western

Canada? What methods are adopted in improving wheat? How may purity and vigor be maintained? Under what conditions should "stubble in" wheat never be practiced? Is subsoiling wheat land in dry districts of any value in overcoming drought? On what soils does manure give best results? When is early seeding of wheat desirable? Late seeding? Heavy seeding? Light seeding? How can the farmer judge when to cut his wheat? How should a stack be built to shed water perfectly? What are the specifications for the various grades of wheat? How may Hessian fly, cut and wire worms and other insect enemies of wheat be held in check? What is a good recipe for gopher poison? What is

the difference between loose and covered smut of wheat and how may each be controlled? How can rust, in a measure, be controlled? Is wheat scab a dangerous disease? What percentage of the wheat crop of the West falls into the different grades? What has been the average price of wheat for the last 20 years?

The answers to these and many other questions that arise in connection with the growing of wheat are answered in the chapter on this great cereal or elsewhere in the book. It contains similar information on each of the other grain crops grown in the West—oats, barley, rye, flax and peas, as well as on pasture and hay crops, roots potatoes and corn.

Pictures That Mean Money

A strong feature of Crop Production in Western Canada, is the illustrations. In number there are over 175. They include, of course, many general farming scenes, but special mention must be made of the illustrations specially prepared with the object of conveying directly to the eye the results of different methods of crop and soil treatment. Charts are effectively used for this purpose. Take for instance, the chart showing a summary of the tests with wheat at Saskatoon. What is there on the culture of wheat that is not seen by a glance at this chart? How does spring breaking compare with early summer breaking in producing crops of wheat? What advantage is there in applying manure to wheat fields? Does wheat do as well after corn as after fallow? Is there any advantage in plowing the fallow twice? What is the effect of grass in the stubble on the succeeding crop of wheat? The answers to these, and a score of other questions of immense practical importance, are summarized in the chart and given in such a manner that they are not easily forgotten. Similar charts are given for the other chief crops in the West, and in themselves are an education on the cultural methods that give best returns on the prairies.

Crop Production in Western Canada

By JOHN BRACKEN

Contains 16 chapters—each one brimful of practical information based on investigations and experiments conducted over many years by one of the foremost authorities on field crops on the continent. It contains 456 pages—is printed on good paper, has large, clear, readable type and is relieved by over 175 descriptive illustrations and tables. The book is not only an authoritative text book but is also written in simple language expressly to meet the conditions on the average Western Canadian farm. This book is written in Western Canada by a western man for the farmers of West. It is based solely upon investigations, experiments and observations conducted in the Canadian West over a period of many years.

Book Department,
Grain Growers' Guide
WINNIPEG, MAN.

TIME OF BREAKING.	
JUNE 10	30-32
JULY 10	27-30
AUGUST 10	23-25
SEPTEMBER 10	17-20
SPRING	16-25
TILLAGE OF STUBBLE.	
NO CULTIVATION (CRASSY)	9-10
NO CULTIVATION (CLEAN)	17-19
DOUBLE DISCED AND HARROWED	22-25
BURNED, DOUBLE DISCED AND HARROWED	22-25
FLOWED DEEP IN FALL	22-25
FLOWED SHALLOW IN SPRING	23-25
FLOWED DEEP IN SPRING	23-25
FLOWED SHALLOW IN FALL	23-25
TILLAGE OF FALLOW.	
DOUBLE DISCED BEFORE FLOWING	35-37
NO CULTIVATION BEFORE FLOWING	37-23
FLOWED ONE MONTH LATER	35-31
FLOWED TWICE	35-19
THIN PLANTING OF PASTURE ON FALLOW	31-03
ROTATION EFFECT.	
ON FALLOW	35-02
AFTER CORN	35-57
AFTER ROOTS AND POTATOES	29-40
AFTER PEAS	28-30
AFTER FLAX	25-22
AFTER WHEAT	20-51
FERTILIZER TEST.	
NONE	35-02
FERTILIZERS	35-42
MANURE	36-43
MANURE AND FERTILIZERS	37-59

The Culture of Wheat. Summary of Tests at Saskatoon.
—From Crop Production in Western Canada.

SEND NO MONEY—You can get the Book on Approval

The Grain Growers' Guide has so much confidence in Prof. Bracken's book, Crop Production, and feels so sure that every farmer who sees it will want it for the intensely practical and valuable money-saving and making points which it contains, that it is willing to take the risk of sending it out on approval to any farmer in Western Canada who signs and sends in the Coupon given below.

FILL IN AND SEND THE COUPON

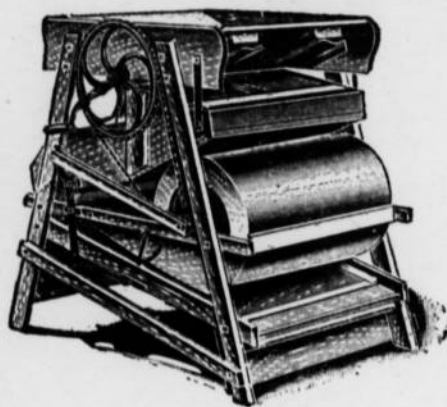
-----The Book Comes on Approval-----

THE GRAIN GROWERS' GUIDE, WINNIPEG, MAN.
Gentlemen: I would like you to send me on approval a copy of Prof. Bracken's book, Crop Production, with the distinct understanding that I have, seven days after its receipt, to either return the book to you (in an unsoiled condition) or send you its price, viz., \$3.00.

NAME _____
P.O. _____ Prov. _____
Occupation _____

U.G.G. Insurance for Bigger and Better Crops

U.G.G. Fanning Mills



You can't be too particular in the selection of your Cleaner and Grader.

There isn't a machine used on the farm that is of more importance than a reliable Cleaner and Grader. It is greatly responsible for the quality of your seed—the quantity of your crop—and the price you get for it at threshing time. Make a careful study of the merits of these U.G.G. Mills and you will agree that they are best for your purpose.

There are Many Reasons why You Should Use a U.G.G. Mill

To begin with, they are made of the best of materials and most expert workmanship; they accomplish more work than most other mills; they grade closer and clean to a degree of perfection; they require less power to operate than most machines; and they are furnished with a more complete equipment than usually goes with a fanning mill.

Built in Three Most Useful Sizes

	F.O.B. Winnipeg	Regina	Calgary
No. 1. A 24-inch Mill, with a capacity of from 15 to 20 bushels per hour. A hand-power machine that can be equipped with power attachments if desired. Weight, 194 lbs. Price, without Bagger, f.o.b. shipping stations	37.25	38.50	39.85
No. 2. A 32-inch Mill, with a capacity of from 25 to 35 bushels per hour. For hand or power. Weight 214 lbs. Price, without Bagger, f.o.b. shipping stations	45.10	46.70	48.40
No. 3. A 40-inch Mill, with a capacity of from 40 to 50 bushels per hour. Strictly a power machine. Weight, 294 lbs. Price, without Bagger, f.o.b. shipping stations	61.20	63.40	65.70

For Prices of Baggers and other attachments Send for 1920 Spring Catalog—Now Ready.



The Question Every Farmer Must Decide for Himself.

Fight or Surrender—Which?

Gophers are destroying millions of dollars of grain annually. It has been estimated at a bushel per acre. Can you afford this loss with wheat selling at present prices? How much of your grain did the Gophers destroy last year? And what are you going to do about it this year—fight or surrender?

Mayers Gopher Poison

Will solve your problem—it will furnish you with ammunition that is guaranteed to exterminate the pests. There is enough poison in a single dollar package to clean up the worst infected 100-acre farm in Canada. Start the fight early—before snow leaves the ground. Write for special information on the gopher menace.

Order Your Requirements from Nearest U.G.G. Branch, or Apply to Agent at U.G.G. Elevators Where Stock is Carried.

Single Package, 14-oz., 100-acre size. Package	1.00
Lots of one dozen packages	11.00
Cases of three dozen packages. Per case	31.00

Special Prices in Quantity to Municipalities. Write for Attractive Proposition.

To Saskatchewan Delegates

If you are going to be in Saskatoon for the Annual Meeting of the Saskatchewan Grain Growers' Association, February 10 to 13, be sure and visit the Saskatoon offices and warehouses of United Grain Growers Limited. Take this chance to get thoroughly familiar with the U.G.G. line of machinery and the service the Company renders. At the same time look after your insurance. Arrange you hail, fire, automobile, or any other kind of insurance while you are in Saskatoon. Offices and Warehouse are located at—
132 AVENUE A
—Make it your headquarters while at—
SASKATOON

Requests for the 1920 Catalog

Are pouring in. Evidently thousands of farmers are planning early spring purchases. The Catalog will soon be ready for mailing. If you are a Shareholder, or were on the mailing list last year you need not write—an envelope is already addressed to you waiting for the Catalogs to come from the printers.

If you are not a member, or have not had a copy of our Catalog before, fill out the coupon and make sure of getting one.

Free Catalog Coupon

United Grain Growers Limited,
WINNIPEG, REGINA, SASKATOON,
CALGARY, EDMONTON.

Please send me postpaid your 1920 Spring Catalog as advertised in The Guide of February 11th.

NAME

TOWN (P.O.)

R.F.D. PROV.

I am specially interested in

UNITED GRAIN GROWERS LTD.

The Organized Farmer in Business

Winnipeg
Regina
Saskatoon
Calgary
Edmonton

La Crosse Seed Drills



The Original Drill with Power Lift and Power Pressure

Horses or Tractor do the Work

That's the new way—the way La Crosse Drills handle the seeding problem. Hand levers are used only to adjust the gangs to the depth you want to sow. The horses or tractor do the raising and lowering at the turns without stop. It saves time and labor.

Sow 2 Acres More Every Day

That's what you can do with a La Crosse Drill and you can depend upon it. Two acres a day more than you can sow with any old-style drill ever made with hand levers to raise and lower the gangs, because you don't have to stop twice at the turns.

Don't Make a Mistake in the Selection of Your Seed Drill. Insist on Power Lift and Power Pressure.

It's the greatest improvement made on seed drills in a quarter of a century. It is a big, crowning feature that saves time, saves labor, and enables you to sow at least two acres a day more than you can sow with any hand-lever drill. It places the La Crosse in a class absolutely by itself—head and shoulders ahead of all others.

But Don't Think that Power Lift and Power Pressure are the Only Good Features of La Crosse Seed Drills.

They are not. Without it these machines would still be the best and most dependable on the market. Their design—the material and construction—workmanship—finish—all combine to make it the perfect product it is. Unquestionably it is the machine you want and must have to get full value for your money.

WRITE FOR PRICES AND FURTHER INFORMATION.

Answers to Questions

In the last few weeks a lot of questions about the capital stock of United Grain Growers Limited have come into the different offices of the Company. Here are some of them, with the answers, and the information given will be useful, not only to farmers who want to become Shareholders, but to many present Shareholders of the Company as well.

Can I become a Shareholder?

You can if you are a farmer, or a member of a farmer's family.

How much do I have to put in to start with?

You can put in as little as \$6.00 as the first installment on \$30, the purchase price of a single share. The remaining payments can be spread out over several years.

How many Shares can I take out?

Not more than 100 shares may be held by a single member.

What is the Company's Capital Stock?

The authorized capital of the Company is \$5,000,000. Of this, practically \$2,500,000 is paid up. The Directors authorize the sale of additional shares from time to time, only as more capital can be used to advantage. These new shares, and the installments paid in on shares subscribed for, provide the increasing capital that is needed to take care of developing business and changing conditions.

How shall I become a Shareholder?

First, sign an application for the number of shares desired, from one to one hundred. The application forms may be obtained from the different offices of the Company, or from the Investment Department, United Grain Growers Securities Company Limited, at Calgary or Winnipeg. At the same time pay in the purchase price of the shares at \$30 each, or else the first installment at the rate of \$6.00 per share. The application form goes before the Board of Directors at the next meeting, together with particulars to show that you are qualified to be a shareholder. The stock is then allotted and the share certificate made out in your name.

Does this entitle me to Vote?

Yes. As soon as you have taken out shares you become a member of a Shareholders' Local. You have the right to attend its meetings, take part in the election of the Local Board, and the delegate to the annual meeting.

Why are Shares sold at a premium?

Because they are considered to be worth it. The par value of Shares in the Company is \$25; the selling price is \$30. Since 1911 all Shares have been sold at this premium. The reason is the value represented by the Shares. As the last Annual Statement of the Company shows, each share of the Company represents a net value in assets, after deducting all liabilities, of \$43.25.

The purchaser of Shares at the present time gets the benefit of this extra financial strength built up through years of development. Dividends, when declared, are paid on the par value of capital stock paid up.

Why does the Farmers' Company require capital stock?

The Farmers' Company cannot get along without investments of capital any more than any other business. The capital stock goes to provide "capital assets," such as elevator buildings and machinery, warehouses, and other equipment necessary for doing business. Capital is required too, in the form of "working capital" for the money put into current assets such as purchased grain, machinery, co-operative supplies. When grain is bought at an elevator, or a car of machinery, or binder twine, purchased for the use of farmers, the Company must pay for it. Part of the money for such business can be borrowed from the banks following the regular commercial practice, but it is necessary for the Company to provide a large part of the funds out of its own capital. Without capital stock no business at all could be carried on.

Why are Dividends paid?

Because the men who provide the capital have a right to a return on their money. It is true that most of the Shareholders took out Shares, not for the purpose of making an investment, but to get the services of a Farmers' Company established. Many of them would doubtless have spent the amount of their investment in order to make sure of having a Farmers' Company, even though there was to be no direct return. Other farmers, especially in recent years, have seen the advantages of Shares in the Company from the point of view of an investment.

At the same time there is a constant addition of new members. Both these are extremely desirable tendencies, and should be strengthened.

To develop the full usefulness of their Company the farmers of the West require to put in more capital than is represented by an average of \$70 for each member, as at present. At the same time every new Shareholder brings into the Company, not only his money, but his personal strength and influence, and it is this personal co-operation of the farmers, backed by the investment of their money that has enabled them to bring their business company to its present usefulness. The same factors will make for its increasing development.

From the number of questions coming in it is evident that there is widespread interest in connection with the Company's shares and other matters connected with capital stock and finance at the present time. If these articles do not cover information desired on all points, it has been arranged that the Investment Department will answer special enquiries if addressed to that Department at Calgary or Winnipeg.

This is the Forty-fourth of a series of articles published by the United Grain Growers Limited.



Try This Stump Puller 30 Days FREE!

One Man Alone Handles Biggest Stumps

SEND NO MONEY!

Kirstin One Man Stump Puller

Here's the Puller that you and thousands of others have long been waiting for. Ten thousand now in use. Letters from everywhere tell of sensational results. Pronounced a big success by Government Officials, University Experts and Land Clearing Contractors. Pulls ordinary run of stumps or trees out of the soil so easy—it's almost play. One man can clear an acre a day—costs about 4c a stump. Think of clearing land so cheaply. Think of pulling all your stumps by hand—and alone—no horses or extra help required—a stump every 3 or 4 minutes. It's true, every word of it. The Kirstin is

The Quick, Cheap, Easy Way to Clear Your Land

No other stump puller is so economical to buy or so easy to operate. Just a few pounds pull on the handle means tons on the stump. When stump starts, throw machine into high speed and out comes the biggest stump, roots and all.

The Kirstin Pullers are remarkably easy to get into the field and easy to handle among the stumps, too. They do the work—where horses can't go. They do it cheap and stand up under hard usage, under all conditions.

Get all the **FACTS**. Learn about our Liberal Offer—our Actual 30 Days' Free Trial—3 Years' Guarantee, etc.

30 Days' Free Trial!

We call this an Actual 30 Days' Free Trial, because no matter when you order or when your Puller arrives, you can actually use it for 30 days before you decide to keep it.

If the Puller doesn't please you in every way—if it doesn't do the work satisfactorily and economically—it can be returned at our expense and every cent of your money will be refunded. In addition to this wonderful free trial offer we give you

4 Easy Ways to Pay!

If you like you can order on a No-Money-In-Advance Plan—Pay Cash and get discount—\$10.00 Deposit Plan—or on the Installment Plan, which gives you 6 months to PAY. No other offers so liberal.

Now send for Free Book and read about the wonderful KIRSTIN Puller with the Single, Double, Write for Special Agents' Proposition!

A. J. KIRSTIN CANADIAN CO. 344 Dennis St. Sault Ste. Marie, Ont.

Triple Power Features. Any man would rather have a KIRSTIN with its money-saving and time-saving superiorities, than an ordinary puller. Get our Special Low Prices, Terms, etc., without delay.

3 Years' Guarantee Flaw or No Flaw!

We guarantee perfect satisfaction or money will be refunded, according to our 30 Day Free Trial Offer. We further guarantee to replace free of charge any castings that may break—flaw or no flaw—within 3 years. The big, strong Kirstin organization is behind the guarantee. Send for copy.

Get This Book FREE

Read how farmers make \$240.00 net profits on one acre, the first year. How others make \$300 to \$600 from a few acres of newly cleared land. Increases of 50 to 100 per cent land valuation are not unusual. The book is filled with letters telling all about it.

Book also gives full particulars of Kirstin Free Land Clearing Service—worth many dollars to any farmer. Contains pictures and describes all sizes and types of Kirstin Pullers—One Man and Horse-Power Pullers. Get it NOW.



K-45

The Birdman in Peace Time

Aerial Navigation As a Commercial and Industrial Factor—By
[Flight-Lieut. H. B. McKinnon]

SUDDEN in its effects as the proverbial bolt from the blue, the 11th of November, 1918, put a momentary stop to the so-called aerial supremacy of Great Britain and forced a complete reorganization of her aerial policy and an utter re-direction of her vast air-allied industries into unknown channels. For four long years the skill of her designers and the productive capabilities of her specialized manufactories had been toward one idea—the maximum production of airborne fighting pieces, generally termed airplanes. The pilot on the fighting front demanded a machine to suit his requirements. He wanted enormous speed, extreme manoeuvrability, powerful and rapid climb and a boundless supply. He did not demand inherent stability, absolute dependability, great endurance nor a high factor of safety, in either design or construction. With November 11th, however, came an end of the army pilot's specifications and manufacturers found themselves faced with the necessity of producing high-powered stable machines, of great carrying capacity and moderate speed, capable of long-sustained flight and of being landed under almost any conditions without jeopardy to the lives of the passengers. In Great Britain, the manufacturers met that demand and before the ink on the papers of Armistice was dry great aerial fleets, literally speaking, were in operation; converted fighting machines were carrying mail to Cologne, urgent supplies to the armies of occupation, and whole parties of cabinet ministers and their secretaries from London to Paris and Versailles. In a few months, the aerial express almost wholly displaced the fighting scout and the long-distance bomber.

Canada has not shared in this magnificent achievement of peace; in fact, her people hardly realize what has come about in the Old Country. They hardly credit the fact that a regular air-express service operates daily between London and Paris, covering the distance in a little over two and a half hours, the machines arriving and departing to the minute of scheduled time, day in and day out, regardless of wind or weather, and carrying passengers, mails and valuable freight of small bulk. Furthermore, Canada actually has been content to watch other and smaller countries get the lead of her in the development of commercial aviation; she is, even yet, quite unmoved by the fact that Australia is putting into operation an inter-state air service, that Columbia and Denmark are embarking upon definite aerial policies and that even China is awaking to the inconceivable possibilities of air-borne commerce.

Perhaps, in a way, this is just as well. Canada can afford to act slowly

if, by reason of tardiness, she act with forethought and caution and a sufficient seasoning of imagination. Her varied topography—with mountain and gore, bald prairie and rocky plateau, woods, lakes and mighty rivers, is in itself a check upon hasty action. Her uneven climate, with its extremes of heat and cold and its great depth of snow in winter, is a factor demanding caution. Her vast distances, her lack of ready capital, her paucity of population and her ocean-wide isolation from potential enemies—all are reasons why the great mass of Canadians at the present time, still see through a glass darkly in so far as active development of a definite air-program is concerned.

Facts That Await Consideration

Meantime, however, it may be well to present certain facts that await consideration. Canada has in its great lakes an ideal natural ground for developing the commercial use of the flying-boat as it is

commonly known. The flying-boat is, in plain terms, a flying machine which arises from and alights upon the water. The present-day type is of solid construction, is easily handled, can make from 80 to 100 miles per hour, and can carry a useful load (apart from crew and fuel) of about two tons. Unlike an airplane, it flies constantly over the water, upon the surface of which it can alight at any moment. Thus assured a constant landing ground, it requires no safe gliding height and need waste no time in climbing before setting out upon its journey.

Let us suppose such a flying-boat to be moored at Port McNicol, ready to receive mail for western Canada. Assuming fuel supplies could be replenished at Sault Ste. Marie, such a boat could leave Port McNicol with some two tons of mail matter, and, travelling at an average speed of 90 miles per hour, deliver that mail at Fort William in the space of about five hours, almost before a fast express train would be well on its way. Under good weather conditions, it might exchange, at Ft. William, its valuable cargo for east-bound mail and, during six months of the year, again reach Port McNicol before nightfall on the same day. From mail and parcel freight to passengers would be but a step, and one quite possible and feasible in Canada, anywhere over the whole of the vast great lakes system. In fact, a flying-boat service might operate eastward from Lake Ontario ports right down the St. Lawrence, connecting up with ocean-going steamers or, in a few years' time, with Europe-bound dirigibles.

Turning to the land surface of the Dominion, it is difficult to state, arbi-

Continued on Page 68.



Looking Up.

Exclusive Features at Seed Bed Preparation

No other Tractor is so well adapted to this work as the **GRAY**—the Wide Drive Drum and wide front wheels distribute the weight so that no wheel marks or ruts are left in the seed bed. The side hitch permits the easy hitching of all tillage tools—disks, packers, harrows and cultivators.

You can also plow and do belt work. It is truly a general-purpose Tractor.

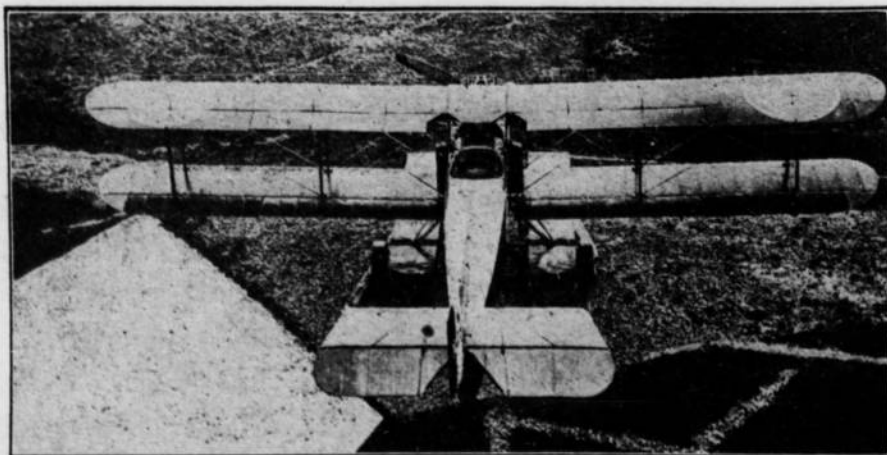
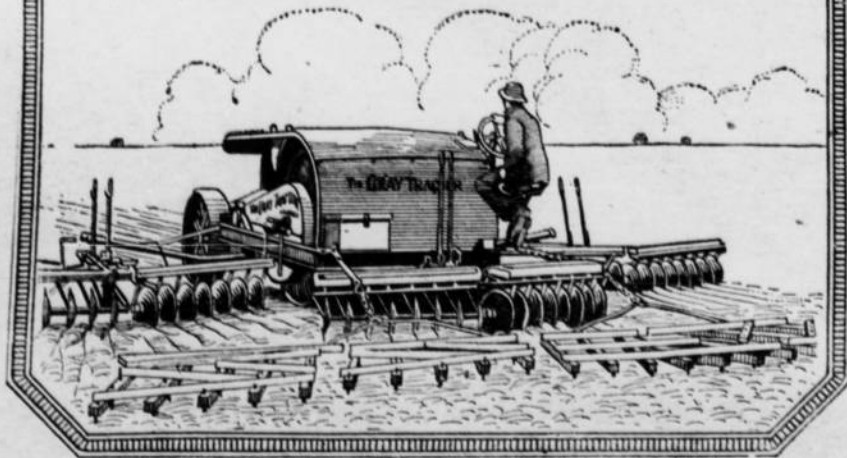
It also has a reputation for quality and a low repair record. It has proved itself over a long period of years. It is here to stay.

WRITE FOR FULL INFORMATION

The Gray Tractor Co. of Canada Limited

307-9 Electric Railway Chambers, Winnipeg, Man.

NORTON & LEIF, CALGARY, Distributors for Alberta.
C. WARING & Co., 16 High St. E., MOOSE JAW, Distrib. for Southern Saskatchewan.



Looking Down.

The Lumber Outlook

Continued from Page 34

Canada received as much attention from provincial and federal authorities as at present. A national survey has been started and has been completed in certain provinces. The one in British Columbia took three years. Similar work is now being conducted in Ontario through the Commission of Conservation, and in New Brunswick splendid progress is being made in this direction.

Canada's Timber Regions

Just where our chief sources of supply lie and the various types of timber that Canada owns may prove of timely interest and instruction. Our leading hardwoods are birch, maple and beech, and in softwoods, white pine, red pine, spruce, balsam, fir, and hemlock are the principal species, with pine and spruce predominating. In Ontario and Western Quebec the pine is the most important tree, but in Eastern Quebec and the Maritime provinces spruce is the most prolific growth. This is evidenced by the fact that Quebec has more pulp plants than any other province in the Dominion. The greatest lumbering region in Eastern Canada is that which lies north of the hardwood belt in Ontario and Quebec and extends into Nova Scotia and New Brunswick. Mixed with the various softwoods or conifers, as they are generally classed, are scattered stands of birch, maple, beech and other hardwoods. Then to the north of the lumbering region already outlined, there is a stretch of woodland crossing Quebec, Ontario, Manitoba, Saskatchewan and Alberta, which is covered for the most part with spruce, jack-pine and poplar. This timber, however, is not of a quality or dimension to render it a salient factor in the development of the lumber trade of Canada. In the territory referred to the rivers run to the north, settlements are far apart and transportation is none too attractive.

British Columbia's Wealth

Over half of the wooded wealth of the Dominion lies in British Columbia, where it is estimated that the total timber stand is 350 billion feet. In this western red cedar leads with 77,000,000, board measure; douglas fir is a close competitor with over 76,000,000 feet, board measure; spruce follows with 72,000,000 feet, board measure; western hemlock constitutes 64,000,000 feet board measure. These four woods comprise over eighty per cent of the total timber growth of the Pacific Coast province. Ontario is the most important hardwood producing province and Quebec comes next.

Much progress has been made of late years in the manufacture and distribution of lumber. With double and single cutting band saws, gang saws, etc., the product is evenly sawn, accurately graded and sorted and piled with care, while life in the woods has shown a marked improvement, and logging operations are conducted on a more scientific basis. The evolution of the lumbering industry of late years has been most marked, and, properly managed, our great forests will turn out for many years continuous streams of sylvan wealth and with wise foresight and efficiency, there is no reason why the Dominion should not supply a large portion of the timber requirements of the globe in the days that are to come.



The Air-cooled Refuse Burner of a Leading Shingle and Cedar Mill in the West.

THE DOMINION BANK

At the Forty-Ninth Annual General Meeting of the Shareholders of The Dominion Bank, held at the Head Office, in Toronto, on 28th January, 1920, the following Statement of the affairs of the Bank as on the 31st December, 1919, was submitted.

Balance of Profit and Loss Account 31st December, 1918.....	\$446,503.22	Which amount has been disposed of as follows:	
Profits for the year, after deducting charges of management and making full provision for bad and doubtful debts.....	\$1,256,053.83	Dividends (quarterly) at Twelve per cent. per annum.....	\$720,000.00
Less		Bonus, one per cent.....	60,000.00
Dominion Government War Tax (on circulation).....	\$60,000.00	Total distribution to Shareholders of Thirteen per cent. for the year.....	\$780,000.00
Taxes paid to Provincial Governments.....	26,350.00	Contribution to Officers' Pension Fund.....	30,000.00
	\$86,350.00	Contributions to Patriotic and other Funds.....	10,500.00
Making net profits of.....	1,169,703.83		
	\$1,616,207.05	Written off Bank Premises.....	\$820,500.00
			300,000.00
		Balance of Profit and Loss Account carried forward.....	\$1,120,500.00
			495,707.05
			\$1,616,207.05

GENERAL STATEMENT

LIABILITIES	ASSETS
Capital Stock paid in.....	Gold and Silver Coin.....
Reserve Fund.....	Dominion Government Notes.....
Balance of Profit and Loss Account carried forward.....	Deposit with Central Gold Reserves.....
Dividend No. 149, payable 2nd January, 1920.....	Notes of Other Banks.....
Bonus, one per cent., payable 2nd January, 1920.....	Cheques on other Banks.....
Former Dividends unclaimed.....	Balances due by other Banks in Canada.....
	Balances due by Banks and Banking Correspondents elsewhere than in Canada.....
Total Liabilities to the Shareholders.....	
Notes in Circulation.....	Dominion and Provincial Government Securities, not exceeding market value.....
Due to Dominion Government.....	Canadian Municipal Securities, and British, Foreign and Colonial Public Securities other than Canadian, not exceeding market value.....
Deposits not bearing interest.....	Railway and other Bonds, Debentures and Stocks, not exceeding market value.....
Deposits bearing interest, including interest accrued to date.....	Call and Short (not exceeding thirty days) Loans in Canada on Bonds Debentures and Stocks.....
	Call and Short (not exceeding thirty days) Loans elsewhere than in Canada.....
Balances due to other Banks in Canada.....	Other Current Loans and Discounts in Canada (less rebate of interest).....
Balances due to Banks and Banking Correspondents elsewhere than in Canada.....	Other Current Loans and Discounts elsewhere than in Canada (less rebate of interest).....
Bills Payable.....	Liabilities of Customers under Letters of Credit, as per contra.....
Acceptances under Letters of Credit.....	Real Estate other than Bank Premises.....
Liabilities not included in the foregoing.....	Overdue Debts (estimated loss provided for).....
Total Public Liabilities.....	Bank Premises, at not more than cost, less amounts written off.....
	Deposit with the Minister of Finance for the purposes of the Circulation Fund.....
	Mortgages on Real Estate sold.....

E. B. OSLER, President.

C. A. BOGERT, General Manager.

AUDITORS' REPORT TO SHAREHOLDERS

We have compared the above Balance Sheet with the books and accounts at the Chief Office of The Dominion Bank, and the certified returns received from its Branches, and after checking the cash and verifying the securities at the Chief Office, and certain of the principal Branches on December 31st, 1919, we certify that, in our opinion, such Balance Sheet exhibits a true and correct view of the state of the Bank's affairs, according to the best of our information, the explanations given to us and as shown by the books of the Bank.

In addition to the examinations mentioned, the cash and securities at the Chief Office and certain of the principal Branches were checked and verified by us at another time during the year and found to be in accord with the books of the Bank.

All information and explanations required have been given to us and all transactions of the Bank which have come under our notice have, in our opinion, been within the powers of the Bank.

G. T. CLARKSON } of Clarkson, Gordon &
R. J. DILWORTH } Dilworth, C.A.

TORONTO, January 20th, 1920.

"This nation depends more on dairy foods for its physical welfare than any other foods, and the dairy farmer truly performs a tremendous service in the production of such foods."

—P. M. SHARPLES

"There are no substitutes for dairy foods."

There is a
cream separator
expert in your
neighborhood—

the SHARPLES dealer

HIS advice on modern dairy equipment can mean a lot to you. He stands ready to help the farmer, and his sound judgment on farm and dairy equipment can be relied upon—proved by the fact that he sells the Sharples Suction-feed Cream Separator.

He has elected to sell the Sharples only after a careful study of all cream separators. He has proved to his own satisfaction that the Sharples "does" skim clean at any speed." He will gladly demonstrate that fact to you.

The Sharples Suction-feed has other exclusive features; simple, one-piece bowl (no discs), knee-low supply tank, automatic once-a-month oiling system, simple construction that means longer wear. Let the Sharples dealer in your neighborhood show you how these features (found on *no other separator*) will increase your dairy profits.

Sharples

SUCTION - FEED CREAM SEPARATOR

Write to nearest office for illustrated booklet describing the Sharples Suction-feed Separator.

Dept. 84

THE SHARPLES SEPARATOR CO.

West Chester, Pa.

A. I. JOHNSON CO.,
Distributors

Branch Office, REGINA.



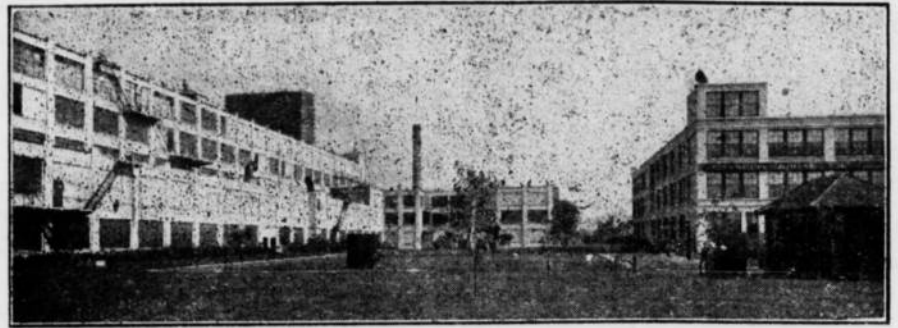
HORSE HIDES

There is a gold mine of dead horses lying around you. Skin them before they rot. I am at present paying —

Extra Large	\$10.00 to \$8.00	Medium	\$7.00 to \$6.00
Large	8.00 to 7.00	Small	6.00 to 4.00

Write for prices of cattle hides and furs. They are all bringing extremely high prices.

Brandon **Frank Massin** Manitoba



The Plant of the Canadian Kodak Company, Toronto.

From Daguerreotype to Kodak

Early Discoveries—Developments of Wet Plate, Dry Plate, and Finally Film Photography

IT was in 1839 that the indefatigable Daguerre announced the discoveries that gave photography in its first crude beginnings to the world. Just fifty years later, in 1889, "film photography," now in universal use, was made commercially practical by an equally indefatigable inventor, George Eastman.

The daguerreotype was made on a thin sheet of copper, silverplated on one side, polished to a high degree of brilliancy, and made sensitive by exposing it to the fumes of iodine. This formed a thin film of iodide of silver. The chemicals were cheap enough, but the cost of the plate for a single picture made it an expensive luxury. The process was also slow. The first daguerreotype made in America, that of Miss Catherine Draper, for instance, was exposed for six minutes in strong daylight and the face of the sitter thickly powdered to facilitate the exposure. An exposure today, with a graflex, under similar conditions, could be made in a thousandth of a second.

The collodion method of sensitizing glass plates, commonly known as the "wet plate" process, which superseded the daguerreotype, came into general use in the fifties. This method marks a most important step in the evolution of photography. With the further discovery of the albumen printing process, by means of which any number of prints could be made from the glass image, photography became henceforth a popular and permanent profession.

Photographic processes, however well adapted to the studio, were still too involved and tedious for outdoor work.

We, of this generation, who go forth so blithely snapping pictures at every turn, little suspect the burden that confronted the amateur of those days. The wagon load of paraphernalia necessary for the travelling outfit, included not only a bulky, burdensome camera equipment, and the still more bulky, burdensome plates, but a dark tent in which the plates could be sensitized before exposure, a nitrate bath, and even a water barrel. Under such circumstances photography was little known and practiced only by a very few devotees whose enthusiasm was equal to its difficulties, technical and physical.

Mr. Eastman's first achievement was a "dry" plate—i.e., a

plate coated with an emulsion consisting of bromide of silver and gelatine—which the inventor succeeded in making commercially practicable at about the time of a similar discovery in England.

The dry plate scrapped the dark tent, nitrate bath and other burdens of the field equipment. But plates, whether wet or dry, are heavy. They are, likewise, breakable and the combination was a serious handicap to the travelling amateur.

The real solution of the problem back in the inventor's mind, even at that early stage of his experiments, pointed to a rollable film that would do away entirely with glass plates.

The first practical step in this direction was a roll film of coated paper to which the sensitized emulsion was applied. A roll holder, the joint invention of a co-worker, Wm. H. Walker, adapted the roll film to existing cameras.

Paper film had its drawbacks. One serious disadvantage was the tendency of the film to print through. Grease overcame this, but quick evaporation made constant greasing necessary, and the process was troublesome. The mechanical end of the problem had, however, been demonstrated to the inventor's satisfaction. This was a big step forward. He was on the right track though the goal was still a long way off.

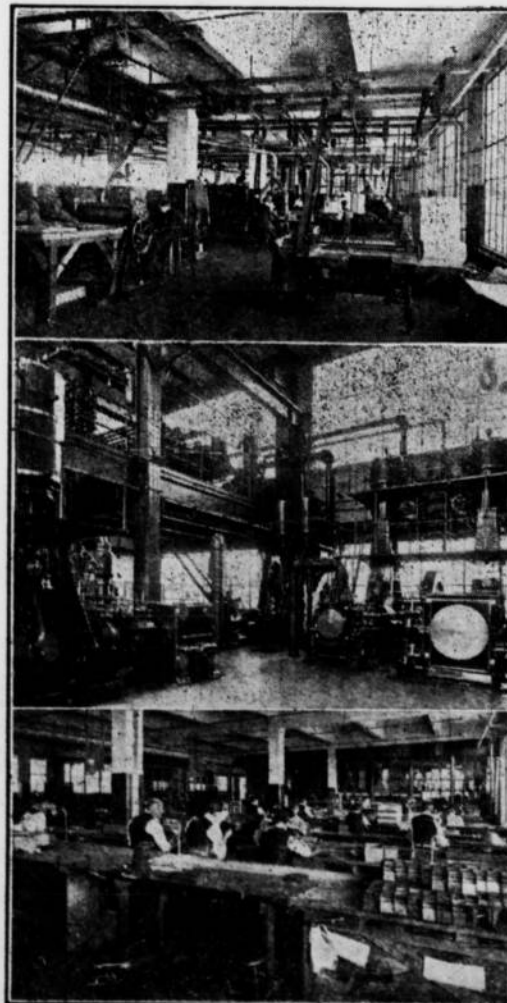
The "stripping" film was the next step in the evolution. The emulsion for this was so made that when the negative was immersed in water the image could be "floated off"

from its paper base and transferred to a transparent gelatine skin. The process, however, was intricate and, like the paper film had to be handled by experts.

These various expedients confirmed the necessity for a transparent, flexible film base, to which the image could remain affixed after developing and through which prints could successfully be made.

The laboratories, however, were reluctant to yield up the secret, and it was not until 1889 that Mr. Eastman succeeded in making commercially practicable the present cellulose base.

It was found that by dissolving cotton, previously nitrated in a solution of denatured alcohol, a thick honey-like



Interior View of a Photographic Supply Factory.

fluid was obtained. This, when converted into sheets and dried, becomes the thin, flexible, transparent film-base of the present. It is this important discovery that has so revolutionized photography and incidentally made motion pictures possible.

The roll film idea naturally evolved a new type of camera. The first film camera appeared in 1888. It took round pictures 2½ inches in diameter and was loaded for 100 exposures. Compared with the little folding pocket edition we carry today, it was a rather crude and clumsy affair. But in comparison with the wagon load of paraphernalia that formerly confronted the amateur, it was a miracle of achievement.

The evolution of the camera proceeded simultaneously with film discoveries. These evolutionary stages included daylight loading—first by means of a protecting cloth at each end of the spool and later by the present cartridge system. It was this latter system that rendered earlier camera models obsolete and made possible the compact, convenient and dainty models of today.

The simplification of photography by Eastman inventions has placed the means of photography in the hands of every man, woman and child on earth. Instead of the exclusive possession of a few devotees, it has, in a few years, become the possession of all, with fields of activity stretching to every horizon. But this simplification has done much more than make "the world a playground for the Kodak."

Educational and Commercial Value

It has enabled photography to enter seriously into the thousand and one activities of business, professional and scientific life. Publishing has been practically revolutionized by it. A click of the shutter and the incident that half a column of type might labor in vain to visualize, is pictorially set forth to the last detail. The advertising pages show its wide use for purposes of illustration.

Entering commercial life it enables the salesman, for instance, to carry in an album, photographic "samples" of wares that in the original could only be moved in great trunks at great expense. Machinery which has to be shipped from the factory "knocked down," accompanied by photographic illustrations, can be re-assembled on the farm without expert assistance.

Stock yards use photography to instruct employees in the most economical methods of meat cutting. Large clothing concerns, with a view to economy in cloth cutting, lay out the patterns to best advantage and then photograph the lay out. This photograph filed for reference saves time as well as cloth.

Contractors with the aid of photography can watch the progress of work at a distance. Railroad companies use it for accident reports and frequently to rush orders for repair parts. Engineers keep photographic records of tunnel construction, bridge work, and of all completed work to show prospects. It is also used by telephone, electric light and gas companies for meter reading in place of the fallible hand method.

The farmer often sells and buys stock from photographs, receives and sends out crop reports by the same convenient method.

The legal uses are just as various and numerous—from photographic copies of signatures, checks, letters, papers too valuable to be removed from safety vaults, to the portrait and finger print gallery of the police departments—all bear evidence to its common uses.

X-Ray photography guides the knife and the probe; micro-photography the study of bacteria; tele-photography the observations of the astronomer, naturalist and archeologist.

Aerial photography which the war developed to a high point of perfection, is proving invaluable in the peaceful pursuits of the surveyor. One lumber firm in Canada is utilizing it for patrol work in its timber limits.

The popular "movie" made possible when Mr. Eastman made film photography practicable, likewise is not the exclusive possession of the amusement world. Educationists of all kinds have seen its adaptability to instructional

Continued on page 51

Heats Whole House in Coldest Weather

All from this
one Register



The construction and operation of the **FINDLAY PIPELESS** is explained in detail in interesting booklets and circulars, which will be sent free at your request. Better still, send us a rough sketch of your house and we will supply you with a heating plan, also price. Our Heating Department is at your service without obligation.

Enjoy Real Comfort!

If you have gone through this winter putting up with the discomfort, inconvenience and dirt of stoves, or any other inadequate heating system, **NOW** is the time for you to find out about the **FINDLAY PIPELESS**—how it will flood your home with pure, warm, moist air at a saving of one-third, or more, on fuel.

Whether your house is large or small, whether you have a large or small cellar, the **FINDLAY PIPELESS** can be easily installed and will give you all the comfort, health and safety of furnace heat at low cost.

Guaranteed to Heat the Whole House Comfortably through One Register

The **FINDLAY PIPELESS** is a triumph of heating efficiency because it is especially designed and constructed for this method of heating. It is properly proportioned as to size of register, heating surface and air-passing capacity, thus making it possible to keep a large volume of pure, balmy air in constant circulation throughout every room, insuring healthful ventilation and comfortable temperature.

Will not heat your cellar. No pipes to take up important space, no tearing up of walls and floors for register. Will burn hard or soft coal, or wood.

Every **FINDLAY PIPELESS** is shipped complete with everything except smoke-pipe, and with directions for installing so explicit that no expert help is needed. You need only cut a hole in the first floor for a single register face, set the furnace in place in your cellar, connect to the smoke pipe and the **FINDLAY** is ready for service.

Manufactured by

Findlay Bros. Co. Ltd. CARLETON PLACE
ONTARIO

Distributors for Alberta:—

Revillion Wholesale Ltd., Edmonton, Alta.

For Saskatchewan and Manitoba Distributors Write us Direct

Save Money by Skimming Closer

Melotte Separators

After five years of war-enforced idleness the European factories have resumed production (all Melottes are manufactured in Europe by the original makers). We are now well stocked in both Separators and Repairs.

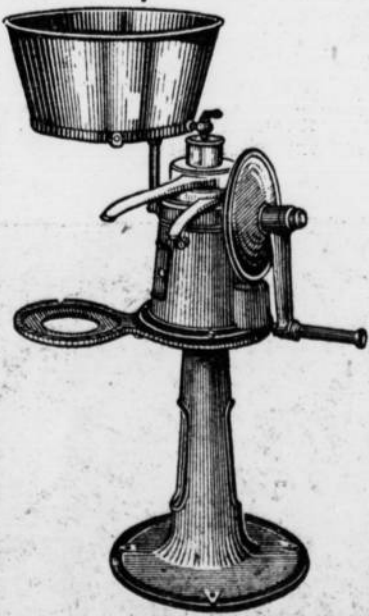
Lister Premier

The purchase price of a **LISTER PREMIER** will be returned through extra cream saved, as compared with ordinary cream separators. This has been proven repeatedly in actual dairy practice. It was a mechanical certainty with Lister engineers who built it.

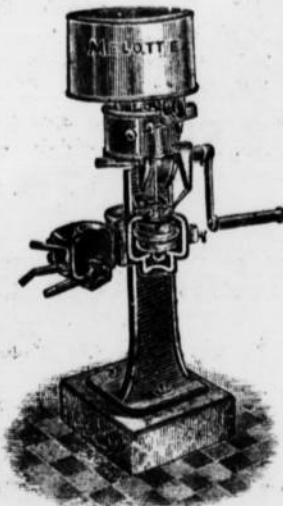
You are invited to call on your nearest dealer, or perhaps your neighbor has one, and thoroughly examine the Premier. Take it apart. The entire machine can be taken apart and re-assembled in a few minutes. You will be impressed with the materials and care used in its manufacture.

Write Dept. G for Catalogues and information on separators or milking machines, churns, ensilage cutters, silos, sawing outfits, pumps, pump jacks, power pumping outfits, engine and lighting plants.

These Machines will be on exhibition in our salerooms (Wall St.) during Bonspiel Week. You are invited to inspect them.



Lister
Premier
(7 Sizes).



MELOTTE
6 Models. 15 Sizes.

R. A. Lister & Co. (Canada) Ltd. Winnipeg, Man.

Our 1920 Book Catalog is Ready for You. Send for it. The Grain Growers' Guide

DE LAVAL CREAM SEPARATORS

are the cheapest
as well as the best



This is the unanswerable argument in favor of the purchase of a DE LAVAL Cream Separator.

Everyone wants the best, provided its cost is within his means. Fortunately a DE LAVAL costs but little more than an inferior cream separator and saves that difference every few weeks.

Moreover, an inferior separator wastes in time and labor, and in quantity and quality of product what a DE LAVAL saves, and goes on doing so every time it is used, twice a day every day in the year.

If you doubt this is so, try a new DE LAVAL alongside any old machine you may be using or other make of separator you may have thought of buying. Every

DE LAVAL agent will be glad to afford you the opportunity to do so.

If you don't know the nearest De Laval agent, simply address the nearest De Laval main office, as below:

THE DE LAVAL COMPANY, Ltd.
MONTREAL PETERBORO WINNIPEG VANCOUVER
50,000 Branches and Local Agencies the World Over

Edmonton Spring Livestock MARCH 29 to APRIL 3 SHOW Entries close March 15

Auction Sale of Pure-bred Bulls, March 30

Auction Sale of Horses, April 1

ENTRIES CLOSE MARCH 1

The prize list is now being prepared and will contain liberal classes for horses, cattle, sheep, swine, and fat stock; also for children's calf, sheep and pig-feeding competitions.

In addition to the Prize Money offered by the Edmonton Exhibition Association, the Department of Agriculture for the Dominion of Canada is offering:—

\$2,800 in Special Prizes for Fat Cattle, Sheep, Swine, and Poultry, including carcass competitions.

Write for Prize List, also for Sale Regulations and Entry Forms

Edmonton Exhibition Association
LIMITED

J. R. McINTOSH, Pres.

W. J. STARK, Mgr.

Every Ford Owner should have **The Model T Ford Car** By VICTOR W. PAGE. The New 1919 Edition

This is the most complete and practical instruction book ever published. Ford owners cannot afford to be without a copy. Complete instructions for driving and repairing are given. All details treated in a non-technical, yet thorough manner. **\$1.10**

THE GRAIN GROWERS' GUIDE LTD.
Book Department WINNIPEG

WHEN WRITING TO ADVERTISERS
PLEASE MENTION THE GUIDE

LIVESTOCK AUCTION SALES A SPECIALTY

Wm. Hilton, Veterinary Surgeon and Auctioneer, 171 Princess St., Winnipeg, Man.
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LEARN AUCTIONEERING

at World's Original and Greatest School and become independent with no capital involved. Every branch of the business taught. Write today for Free Catalog.—
JONES NATIONAL SCHOOL OF AUCTIONEERING,
52 N. Sacramento St., Chicago, Ill. Carey M. Jones, Mgr.

Mineral Products of Canada

As a Factor in Export Trade—By F. W. Gray

THE products of the mine exported from Canada in 1918 totalled \$75,668,875 out of a total of exports valued at \$1,586,169,792, which, considered in the light of these figures alone, would seem to indicate that the mineral production of Canada was not an important factor in exports. No correct estimation of the part played by the mineral industry is, however, possible on these figures alone, because under the general head of manufacturers is included exports totalling in value \$660,840,430 which are very largely the assembled and finished product of the mine, and more particularly of the motive power furnished by coal. For example, the production of steel in Canada during 1918 totalled 1,893,000 tons, all of which was the combined product of the mine, in the form of iron ores, fluxes and coal. This steel, in various forms, was used in Canada, together with the greater proportion of the production of Canadian coal, in making manufactures possible, and in transporting the manufactured goods to their export destination.

It is, therefore, not too much to say that without the product of the mine, in particular coal and iron, no exports of manufactures could be made by Canada.

World's Greatest Nickel Miner

Canada has a great advantage economically and strategically, in possessing almost the exclusive world supply of nickel, which was exported in 1918 to the value of \$9,029,535. Canada is exceptionally well equipped to produce alloy materials, as our country possesses not only a preponderating quantity of nickel ores, but is also well provided with such materials as chromium, cobalt, manganese, titanium, and molybdenum, and has also the advantage of large and cheap supplies of electric current, generated from water-powers, a combination that favors the manufacture of ferro-alloys. The possession of these materials by Canada is important, not only as they may help to foster the growth of specialized metallurgy in Canada, but because they will ensure preferential treatment for Canada in export markets, if our advantage is safeguarded and wisely used.

Asbestos is also a mineral with which Canada is well supplied. As a producer of asbestos Canada now holds first place in the world, and there are very great possibilities in the possible industries connected with the fabrication and uses of asbestos in the arts. This wonderful mineral is now so much used in electrical appliances, and in manufacturing processes employing heat, that in its possession of large supplies Canada holds a strategic advantage similar, but not quite so great, as in the case of nickel.

Exports of Gold and Silver

The production of gold and silver is a matter that enters into export business in a good many ways. Canada is becoming increasingly important as a producer of gold.

The actual production of gold has declined in recent years, because of the fixed selling price of gold, combined with a rising cost of all labor and materials, but the potential yield of gold from Canadian sources is steadily increasing by reason of a constant succession of new discoveries of gold-bearing areas, not

the least important of which is Northern Manitoba.

The position of silver is not quite so certain, but at the present time the increased value of the white metal has had the effect of increasing the known silver resources of Canada by making it profitable to work ore bodies that were too lean to be profitable when silver was selling at about one-third of its present value. There is every likelihood that the increased value of silver will be maintained for a number of years to come—at least until the value of the gold standard is restored to whatever may turn out to be the after-war scale of monetary values.

Our silver and gold production will prove of great assistance in maintaining Canada's exchange credit in foreign markets, and in this connection it would advantage Canadian business men as a whole if they would support the plea of the gold-miners that the Government should assist in some financial manner in increasing the production of gold, either by bonusing the gold mines, or by relieving them of all possible burdens of taxation.



Casting Blister Copper.

Copper that has been brought to the metallic state being cast into 400-lb. blocks for shipment to copper refineries.



Casting Room, Nickel Refinery, Port Colborne, Ont.

The increase of gold production is one way in which Canada's credit can be most effectively buttressed, and incidentally it would assist in the restoration of British exchange.

Importation of Coal

The weakest spot in Canada's import and export trade balances, and in her internal prosperity and financial soundness, is the declining production of coal from Canadian mines, and the rapid and unparalleled increase in the tonnage of coal imported into Canada from the United States. Canada could produce quite easily, and could with greater waste consume within her own borders at least ten million tons more of soft coal from our own domestic collieries. The unnecessary, and, indeed, inexcusable purchase of coal in the United States that could be mined in Canada has the effect of creating an adverse trade balance (so far as coal alone is concerned) of not less than \$100,000,000 annually. If this lopsided and humiliating arrangement were corrected we should not see Canadian funds at a ten per cent. discount in New York, for not only would our exchange credit benefit, but the increased employment and general impetus that would be given to our internal trade would be of even greater benefit than a correction of exchange values.

Summarizing the foregoing, it would appear that, except in some notable cases like nickel and asbestos, the mineral exports of Canada will not bulk largely in the general total of values, but, in proportion as the products of the mine are produced and utilized within Canada, so will our exports of manufactured goods increase in bulk and value; and, further, our possibilities in the export of the products of agriculture, of the forest and the fisheries, will increase just in proportion to the tonnage of coal that is mined, and the tonnage of steel that is manufactured to provide new avenues of transportation, by land and by sea.

It is not certain, moreover, whether it is desirable that Canada should unthinkingly and greatly increase the quantity of its mineral exports—merely as such. It is, however, most desirable, that Canada should so utilize her mineral resources as to provide the maximum of employment and the maximum of revenue within her own borders; and that, with regard to such "key" minerals as nickel, asbestos and coal, that we should use whatever strategic advantages they give us to make the best possible bargain for our exporters, and to secure that preferential treatment in foreign markets we are entitled to ask if we give of our best.

Daguerreotype to Kodak

Continued from Page 49

work and are daily putting it to new uses.

A Large and Growing Industry

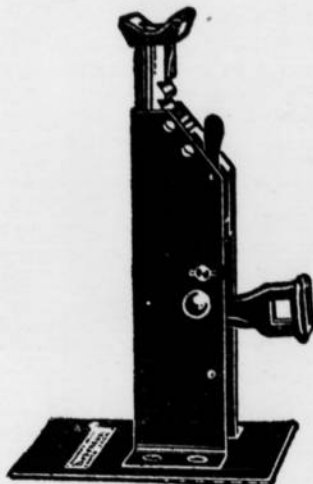
The wide and comparatively recent application of photography to everyday life has naturally created an enormous demand for all sorts of photographic material. As is well known, the centre of the photographic industry on this continent is at Rochester, N.Y., where five plants are maintained, with a pay roll of upwards of 13,000 people. One of these plants turns out, in a single department, more than 10,000 miles per month of motion picture film, into the production of which there goes over 2,500,000 lbs. of cotton per year and, for sensitizing, upwards of three tons of silver per month.

To Canadians, an especially interesting story is that of a large company which started business some twenty years ago, in humble quarters, with a staff of five people. The development of the Dominion has meant as well the development of this company, which now occupies a model plant, with floor space of 10½ acres and a working force of 1000 hands.



3 REAL ACCESSORIES

—Essential Adjuncts to every Car



KLAXON—

Your Signal of Safety



KLAXON 6

An electric motor driven safety signal—its warning note is instantaneous and independent of the running and speed of the car. Finished in the smart "Klaxon-black" enamel—no polishing necessary. A specially designed bracket makes this instrument easily and quickly attachable to any Ford car. Operates in connection with electric starting systems, with storage battery, or dry cells. Regularly wound for six volts. Furnished without extra charge for special voltages up to 21 volts. Suitable for all types of Fords, and is especially popular for closed cars.

Ask your dealer for Northern Electric Accessories.

Northern Electric Company

LIMITED

Montreal
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Regina

Winnipeg

Edmonton

Calgary

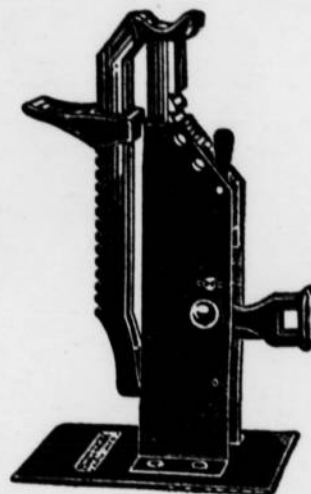
Vancouver

"DEPENDABLE" AUTO JACKS

The merit of this jack lies in its strength, small size, and simple mechanism. The frame is steel, which is far more reliable than malleable. The rack is a three-quarter inch solid steel bar and the teeth are perfect.

The long steel handle is stronger and has better leverage than the ordinary short wood handle.

Eight strokes with the handle raise the car three inches, a job that takes the ordinary screw jack forty strokes. Same motion for raising or lowering. When weight is off, the rack releases by tipping jack forward



RAMSAY'S ANTI-FREEZE

The Radiator solution that prevents over-heating and maintains the efficiency of the cooling system.



KLAXON 3-V

A hand operated safety signal with vertical push rod. Finished in the smart "Klaxon-black" enamel—no polishing necessary. Suitable to all Ford touring cars, runabouts and commercial cars with front door panel at driver's left.

Rebored Cylinders

To convince yourself that we know our business, please read this:—

We are satisfied that re-boring the cylinders, when done by good mechanics, is cheaper and more economical than buying new cylinders, and we are perfectly satisfied with the work done by the John East Iron Works. Anyone having such work to be done, can be confident of a satisfactory job by this shop.

(Signed) LEITH BROTHERS,
Sovereign, Sask.

After reading the above you must be convinced, therefore, send your work in at once and avoid the Spring rush.

John East Iron Works
SASKATOON, SASK.

Full weight of tea in
every package

RED ROSE

TEA "is good tea"

Sold only in sealed packages

121

Any Agricultural Book can be had from The Grain Growers' Guide, Book Department. Send for a catalog.

Special Unreserved Sale

OF

SHOW GRADE

Clydesdale Geldings

AT

ALBERTA STOCK YARDS

CALGARY, ALBERTA

ON

Thursday, February 19th, 1920

At 2 p.m. sharp

Favored with instructions from Messrs. P. Burns & Co. Limited, who are displacing all their Show and Delivery Mares and Geldings with Motor Trucks, we will sell the undermentioned:—

6 Show Clyde Geldings

(Undeclared in Western Canada)

2 Roan Grade Belgians, Mare and Gelding

(Weight 3,450 lbs.)

4 Grey Grade Percheron Mares and Geldings

(Weight over 3,300 lbs. per team)

3 Sorrel Hackney Geldings

(Undeclared in Light Delivery Classes)

1 Heavy-weight Hunter

11 Good Light Delivery Horses

Also all Show Harness and Show Wagons and Rigs

NOTE:—Without a doubt this is the greatest opportunity for anyone desirous of Show Animals to get them at their own price.

Mr. Maclean, manager for Messrs. P. Burns & Co. Limited, has selected these horses with great care and they are undoubtedly the best bunch of show horses in Canada.

Do not forget the date of this sale, and write us for a Catalogue with photographs.

TERMS—CASH

NO RESERVE

A. Layzell Company Limited

Alberta Stock Yards,
Calgary, Alberta
Canada

A. LAYZELL
J. W. DURNO

Auctioneers

Clydesdale Re-construction

Some Opinions From Another Quarter

IN reference to the letter on Clydesdale Reconstruction and the report of the discussions at the meetings of the Clydesdale club for Manitoba in your last issue, as to the matter of securing better sires for the West, why this "Macedonian" cry for help from Scotland? Have western Canadian breeders, after more than 30 years of breeding, arrived at an impasse so that the only way they can see out of it is to pass the buck to the various provincial governments and the Scottish breeders? Why should the Scotchman let his tried sires come to Canada to be virtually lost to the breed? Have not Canadians always gotten just exactly what they went over for—a cheap horse? Why is it that the type of horse not wanted over there, the thick short-legged horse, not overly burdened with quality is called a "Good Canadian horse." Is it not because this was the kind the importers wanted—the kind that could be bought cheap and sold dear?

In the heyday of the importing days a few years ago, when thousands of pure-bred scrubs were unloaded on a long suffering country, was there any great talk of getting good outstanding sires? Have Canadian breeders ever shown that they could be trusted to use to advantage a sire of the type of Kismet or Dunure Refiner. Have we not seen men buying grand champions at our shows and ruining the day they ever saw them. How can a breed be expected to progress which says that four scrub crosses on a cayuse makes a pure-bred Clydesdale?

No! Better leave the tried sires where they are in the hands of men who know how to handle them to best advantage, and can be trusted to make the best use of them for the future advancement of the breed, so that it will continue to stand in the future, as it stands at present.

Certain things seem to an observer to make for the present day excellence of the breed in Scotland. The system of breeders clubs, long continued, making for uniformity of type and similarity of breeding in a district; the centralization of a stallion owning business in comparatively strong hands. The fact that the stallion owners, who are men of means, buy up and develop the best colts—a highly-specialized business; the climatic and soil conditions; the good foundation stock to work on and continuity of breeding; the severe culling that the Scots' studs received at the expense of the overseas trade, and last, but by no means least, the canny hard-headed breeders themselves, skilled beyond all others in the mating of blood lines and blending of types.

Type and Environment

The writer is of the opinion that the ultra-refined type of Clydesdale, as bred in Scotland today, is peculiarly a product of that country and that it is no more possible to produce and keep that superfine quality in this land of the nose fly and dry summers and sub-artic winters, than it is for Scotland to produce the hard wheat that makes the prairie famous. Just as the Shire horse is a product of the limestone hills of Derbyshire and the strong fen lands of the English midlands, the Thoroughbred horse of the green Irish pastures and Kentucky Bluegrass, the hard wheat,

of the dry days and cool nights of the prairies, so is the superfine Clydesdale horse peculiarly a product of Scotland, that may be imitated here, but never equalled.

Why is it that so much of our pure-bred Clydesdale stock has a tendency to be "strong," and hard to keep right in the legs? Is it not because our climate is too dry and the dry-feeding period of winter stabling too long to keep the superfine quality of hair and bone?

Many a man, for this reason, has turned in disgust to the clean-legged breeds, which, whatever their faults, are not so liable to leg trouble, and do not take an expert to keep them right in the legs.

Critics of the breed now say that it is not rugged enough, that some of the substance has undoubtedly been sacrificed. Big, rugged horses there have been in the past, but unfortunately they had big, rugged legs. Ultra-refined legs we now have but, unfortunately, we also have a refined top. Just how far it is possible to put a big rugged top on a present day superfine legs? Will it not have to be a compromise?—J.H.M., Man.

In Livestock Circles

Edmonton Stock Show

Manager Stark writes that the prize list for the Edmonton Spring Livestock Show is now in the printers' hands, and will be ready for distribution about the middle of February. Last fall, a small pamphlet was issued, setting forth the fat-stock classes, in order to give those intending to winter-feed entries for the very attractive specials, an opportunity to get started early. The breeding classes and show classes for horses, cattle, sheep and swine will appear in the complete prize list, and will be very attractive. The entries for the show classes close on March 15. It is the intention to make this year's Edmonton Spring Show a feature event, and Guy Weadick, who put on the Calgary Stampede last fall, has been engaged to give demonstrations each evening of fancy and trick riding and roping, bucking horses, etc.; other special entertainment features are being arranged, with the object in view of giving those from outside points who attend the show a "good time," as well as an opportunity to see the best livestock in the country. W. J. Stark will be glad to mail a copy of the prize list to any writing for it.

Galbraith's New Importation

The first importation of the year to the stables of Alex. Galbraith and Sons, Edmonton, Alberta, comprises seven head, four Percherons and three Clydesdales.

The Percherons range in age from two to seven years, and include Grenat II, a six-year-old handsome dark grey, well built, and with great action. He is a son of one of the greatest Percheron sires in the United States, a most attractive individual, and during the past three seasons has proved himself a real producer.

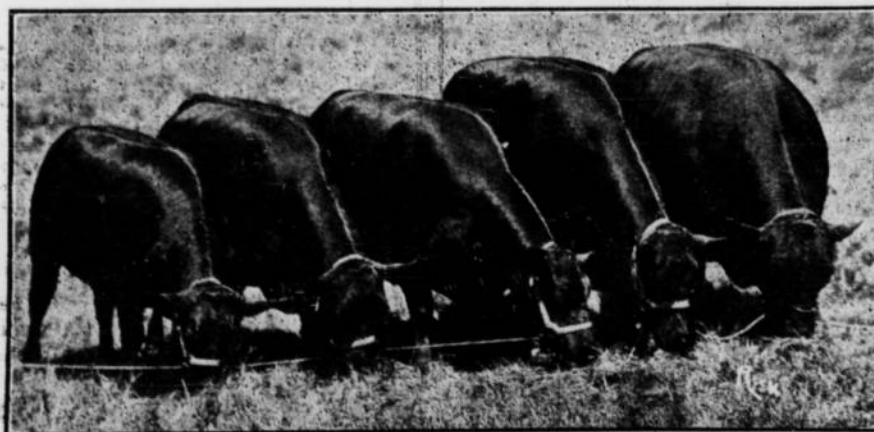
Marshall, by Molynet, a four-year-old second at Illinois State Fair, and fourth at the International last year, is a big, clean-boned massive horse. Close to the ground and possesses good thick quarters with a beautiful top. He weighs 2,140 pounds, and is one of the best Percherons ever brought to western Canada.

Westwood Peter, seven years old, by Pink Parader, one of the best sons of the renowned Pink, is another upstanding black, splendidly balanced, with a beautiful head and neck, and replete with quality.

He is of large size and stands on the best of foundation and is altogether a very handsome horse and winner of fifth place at the 1919 International.

War Pride, a two-year-old, was sired by Harmonica, the sire of De Vine's well-known prize winner, Alpine, while his dam is the grand-mother of the same horse. This is a colt of nice conformation, with a great deal of outcome to him.

The Clydesdales include the rugged, well-made, good middle three-year-old Brewster Carruchan, sired by Lord Balcarras, by Everlasting, out of Maggie Carruchan, by Gallant Carruchan, and the dam of Clarendon.



Industrious Daddies. L. B. Kershaw's Show Herd.

Registered Percherons

Stallions and Mares for Sale

PRIVATE, the Grand Champion on the Western circuit at Spring and Summer Fairs.

LIEUTENANT, the Futurity winner at Brandon, and many other prize winners by the same sire "Jais."

Prices Right for Farmers to Handle and Make Money.

John A. Grant, Black Diamond, Alberta

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Oxford, Shropshire and Lincoln Pure-bred and Grade Rams, Grade Oxford and Shropshire Breeding Ewes, all ages; in lots to suit purchasers. Also, matched teams of Horses, broken and unbroken, 1,200 to 1,400 pounds.

JAMES D. WILSON, Maple Creek, Sask.

M. R. COWELL Livestock Auctioneer

Special attention given farm sales and pure-bred stock. I compile catalogs and personally direct the advertising of important sales. Will sell anywhere in the three provinces.

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Dr. BELL'S Veterinary Medical Wonder
10,000 \$1.00 bottles to
horsemen who give the Wonder a trial. Guaranteed
for Inflammation of Lungs, Bowels, Kidneys, Fevers,
Distempers, etc. Send 25 cents for mailing, pack-
ing, etc. Agents wanted. Write address plainly
Dr. Bell, V.S., Kingston, Ont.

Mammoth Jacks, Percheron Stallions and Mares
A lot of big-boned jacks, three to five years old,
weight up to 1,200 lbs.; 15 to
16 hands. Also a fine lot of
Percheron stallions, black and
grays, weight up to 2,400 lbs.
A lot of large mares, three and
four years old, showing colts.
Will sell one or a car load.
All stock guaranteed.—Al. E.
Smith, R. I. Lawrence, Kansas,
40 miles West of Kansas City.

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18,812 Lbs. Milk

A herd of 13 pure-bred Holsteins last
year averaged 18,812 pounds of milk and
688.67 pounds of fat.

Do you realize the money there is in
such cows? It is estimated that the
average annual yield of all cows in this
country is under 4,000 pounds. These 13
cows produce as much milk as 62 cows of
the 4,000-pound class.

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cows than you need to produce the milk
you require? If interested in

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should be in the hands of every stock owner. Infor-
mation on animal diseases and animal vaccines,
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markers, dehorning, horn weights, brands, breed-
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No More Blackleg

Are you Vaccinating Against Blackleg
and still losing calves?

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**GENUINE Dr. O. M. Franklin's
KANSAS GERM-FREE BLACKLEG AGGRESSIN**

(accine) The only aggressin backed by a guar-
antee to pay for every calf you lose from blackleg
after vaccination.

**SAVES EVERY CALF
With but One Vaccination.**

Do not be misled by cheap imitations claimed to
be "just as good," or "the same thing."

Reliable pro-
ducts are al-
ways subject
to imitation.
Therefore, be
sure you find
this trade-
mark on every
bottle you use.
**IT IS YOUR
PROTECTION**



Price, 40 cents per dose; for 10 cents additional
per dose we issue a written guarantee against loss
from Blackleg. Comes ready to use in 5, 10, 20,
45 and 90-dose bottles. Our specially-made
syringes, \$2.30. Free booklet on request. Order
from our nearest office.

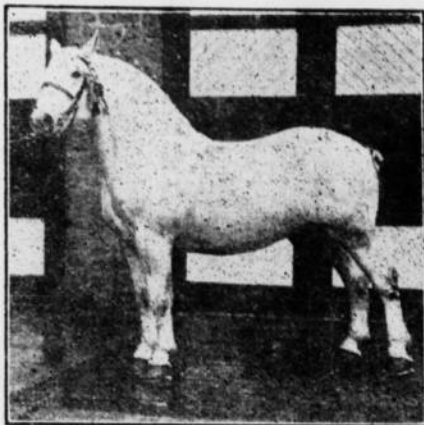
THE KANSAS BLACKLEG SERUM CO.

Amp-110, Texas; Denver, Colorado; El Paso,
Texas; Fort Worth, Texas; Kansas City, Missouri;
Oklahoma City, Oklahoma; Phoenix, Arizona;
Pierre, South Dakota; Salt Lake City, Utah;
Santa Maria, California; Wichita, Kansas.

Galbraith's good Clydesdale of a few years
ago.

King's Minstrel, a three-year-old dark
brown is another. This horse, which was
twice champion at Wisconsin State Fair and
is sired by the champion, King Norman, out
of Melba, by Samuda. This is unquestionably
one of the best horses of his age in the West
today. He is beautifully made all over, of
good size, is a first-class mover, and bears a
strong resemblance to Perpetual Motion at
the same age.

The best of the lot is Winsome Duke, one
of the few royal favorite gets in this country.
His dam is Sweet Brier, by Royal Edward.



Monogram.

Champion Percheron Stallion, Guelph Win-
ter Fair. Owned by Dr. T. H. Hassard.

This is a particularly well-made, low-set, thick
fellow, with a splendid front, good quarters,
and the best of clean, flinty bone, standing on
deep, broad, strong feet. He has been cham-
pion at the Illinois State Fair, has been shown
three times at the International, and being al-
ways in the money; and has also sired win-
ners at both of these fairs.

While the importation is a small one the
horses are a very superior lot, and they are
each and all in condition to go right out and
give good service.

Association Cars Obtained

Livestock Commissioner W. W. Fraser, and
W. I. Smale, secretary of the Livestock Breed-
ers' Associations of Manitoba, have held a
conference with the freight agents of the
three Canadian lines of railway, with regard
to shipping association cars of livestock. The
interview was entirely satisfactory, the rail-
ways agreeing to operate cars on the basis
asked for. Purchasers of livestock for ship-
ments to all points West can take advantage
of the arrangement. Rates for these cars are
provided in the regular tariff. Association
cars can be filled from different stations along
the main line of each of the three railways.
For example: Animals can be loaded at Win-
nipeg, Portage, Macgregor, Carberry, Bran-
don, Griswold, Virden, or any other station on
the main line of the C.P.R. When the car is
loaded it will be carried on a through freight
train until the first delivery has to be made.
From there, the car will be carried from point
to point by way freight. By this arrangement
a man will be in charge of car and deliver
stock at points of delivery, and re-ship on
branch lines when necessary. Buyers from
western Canada desirous of taking advantage
of this service will notify W. W. Fraser, live-
stock commissioner, Winnipeg, Man., or W. I.
Smale, secretary, Livestock Association, Bran-
don, Man.

Edmonton Annual Bull Sale

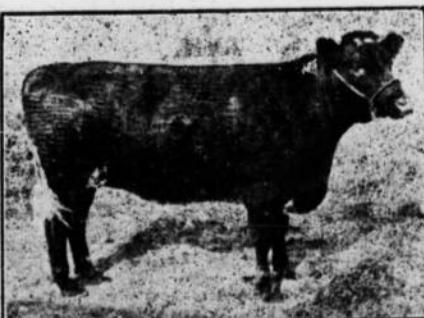
Rules and regulations for the annual auc-
tion sale of pure-bred bulls are ready for dis-
tribution. This event is held in conjunction
with the Edmonton Spring Livestock Show,
March 29 to April 3. The entries for the sale
close March 1. It is the intention to com-
mence the sale on March 30. Before being
sold the bulls will be judged and awarded
prizes in order of merit; they will also be in-
spected by experts selected by the various
breed associations, with the object of weeding
out undesirable individuals. This is a new
departure this year, and is undertaken with
the object of raising the standard of the offer-
ings. Manager Stark will be glad to mail copy
of the regulations and sale entry forms to en-
quirers.

Edmonton Annual Horse Sale

The annual auction sale of horses, held in
connection with the Edmonton Spring Live-
stock Show, will, this year, be held on April
1. Entries for the sale close March 1. Those
desiring to buy or sell should communicate
with Manager Stark, of the Edmonton Exhi-
bition, for particulars, freight arrangements,
etc.

Good Manitoba Holstein

What appears to be one of the best records
made in Manitoba is that of the two-year-old



Kinmel Blossom.

A well-known prizewinner, bred by T. B.
Ralphs and sold to E. G. Evans,
Abernethy, Sask.

BAR U PERCHERONS

The largest stud of the Pure-bred Percherons in the World. The first
Percheron-breeding Farm Established in Canada. The only firm on the
American continent from which British horsemen have selected Percheron
breeding stock to establish studs in Britain.

Do not let the British breeders come to Canada and carry off all our best foundation
stock. Do not be satisfied with the cheap cull stallions brought in by irresponsible
dealers and stallion pedlars from the United States when you can buy the best
individuals of the best breeding raised right here in Alberta by men that have
been in the breeding business for 25 years and expect to remain in the business.
We have Fifty-four head of Pure-bred Percheron Stallions of our own breeding
now on hand to select from. You can see their sires and dams, and if you cannot
choose one from the lot to suit you we will give you every assistance in our power.
Write for prices, or come to High River, Alberta, and we will meet you and show you
the stock at any time. Address:—

GEORGE LANE or
Calgary, Alberta

A. FLEMING, Manager
High River, Alberta

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One of the greatest collections
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Choice stallions and mares for sale at
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A fine assortment of high-class stallions of the above breeds at
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guaranteed breeders, and our insurance proposition covering loss
goes with every horse. Also a number of high-class mares.

We have some good horses at various points in the West. Let us put you in touch
with our nearest representative.

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NORTH BATTLEFORD
SASK.



E. W. McLean's

12th Annual

BONSPIEL SALE OF HIGH-CLASS

Manitoba HORSES

150-200 HEAD

of choice farm Mares and Geldings, consisting of heavy draft and farm
types; also a few showy dapple-grey Percherons, will be sold by auction,

Thursday, February 19, 1920, at 2 p.m.

If you are looking for good horses do not miss this sale. We attend to
shipping for out-of-town customers. 100-150 horses always on hand for
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Stallions, all ages, for Sale or hire under Federal System of Assistance to horse breeders.
These horses are the get of well-known sires such as Revelanta, Baron Ensign, Ruby
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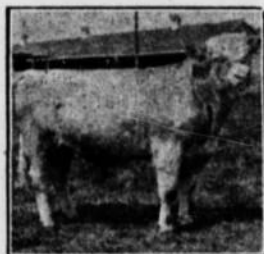
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at Reasonable
Prices our
Motto

Come to Carberry, Man., and see some of the best to be had in the country. A visit will repay you many times over.

12 Stallions and a Few Mares

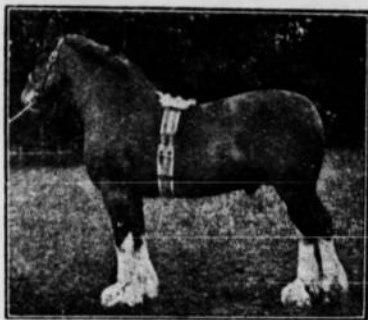
in age from two to six years old and some good ones in the lot. Horses of breeding and quality.



14 Shorthorn Bulls.

from seven months to two years old include an imported-in-dam Princess Royal, an Augusta Brawith Bud, Rosemary, and Broadhooks, all by imported sires and dams. Others of choice breeding from imported sires. Bulls at all prices to suit all pockets. Also females of all ages and like breeding for sale. Come early and get a good choice.

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For Clubbing for 1920 Season

Nine Years Old. Sure Foal Getter. Good Size and Conformation. Will be at Brandon Winter Fair, where he may be examined by parties interested.

Owner: O. LUTES

VIRDEN, MAN.

Important Shorthorn SALES

Dauphin, March 31st, 1920
Swan River, April 1st, 1920

COWS WITH CALVES AT FOOT, BRED AND OPEN HEIFERS AND BULLS

A high-class lot that will work improvement in the cattle stocks of the country, under the auspices of the Dominion Shorthorn Association and the Manitoba Shorthorn Club. Dauphin Agricultural Society will sell Bwes, Bred Sows, and Registered Mares, March 31st. For particulars write:—

CHAS. MURRAY, Sec'y, Dauphin Agricultural Society, Dauphin, Man.
JAS. B. DAVIDSON, Sec'y, Manitoba Shorthorn Club, Carman, Man.

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Herd Headed by the Two Great Bulls:—

OAK BLUFF HERO, by Imp. Oakland Star, and WILLOW RIDGE MARQUIS, by Imp. Gainford Marquis.

Bulls, Cows and Heifers always for sale at most reasonable prices. Special offering at present in bulls from nine months to two years old. Pay the farm a visit. Farm ten miles south-west Calgary, on Priddis' trail.

Stock shipped from Calgary, C.P.R., C.N.R., or G.T.P.

NORMAN HARRISON - Priddis, Alta.

If You Want Herefords

Come to Willow Springs Ranch, Crossfield, Alta., where from a herd of 70 head I will sell a number of choice yearling heifers, two-year-old heifers in calf to my great herd bulls, or beautiful cows safe in calf. I have also at bulls of different ages for sale. Among these are bulls to suit all needs. Come and see these cattle or write:—

FRANK COLLICUT

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Shorthorns and Clydesdales

A few SHORTHORN Females for Sale, also Two Good CLYDESDALE Mares.

Apply—**LORNE C. WILKIN, Myrtle P.O., Man**

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Our stud of 30 imported and Canadian-bred Stallions embraces some of the leading sires in Scotland, such as Bessie Buchby, Bares Buchby, Bares' Pride, Dunure Footprint, winners at the leading shows in Scotland and Canada. These are for sale or hire under Federal Assistance Scheme. A few high-class Shorthorns, both sexes, for sale. **SMITH & RICHARDSON, COLUMBUS, ONTARIO, OSHAWA STATION.**

ELMHURST STOCK FARM

Canada's Largest Polled Hereford Herd. Herd Headers: **POLLED OLIMAX and BULLION 17th.**

Stock, all ages, both sexes, for sale, including 50 bulls of splendid individuality. Write us or come and see our cattle.

JONES BROS. - WHITEWATER, MAN.

Colantha Queen Butter Girl, 48614, belonging to Clark and Sims. In seven days' official testing she produced 507.4 pounds of milk and 24.1 pounds of butter. She averaged 75 pounds of milk for 14 days.

Winnie's Duplicate, 60980, a junior two-year-old in the same herd produced 306.1 pounds of milk, yielding 12 pounds of butter in seven days. This heifer was put on test two days after freshening. As was true of the Clark & Sims' cows, mentioned in last week's issue of The Guide, these records were made under the most trying feed conditions. Shortage of hay made it necessary to use straw for roughage, while the grain portion of the ration was limited to the produce of the local farm.

Suffolks Do Well

From England comes a report of the winnings of Suffolk sheep at the recent Smithfield Club Stock Show in London. They won the champion plate in the short-wool section and the Prince of Wales' perpetual challenge cup for the best pen. Southdowns were reserves in both instances. In the carcass contest a Suffolk was reserve to the Southdown champion, and a Suffolk-Cheviot won first in the crossbred sheep class. Eight lambs entered in the carcass section averaged 148.5 pounds live weight, and 87 pounds dressed. In the live section seven pens averaged 576 pounds



One of McCauley & Sons Imported Clyde Mares and Foal, Waseca, Sask.

the pen of three. Our correspondent quotes J. Thomson Stephen, Leicester, a wool expert: "There is a struggle to get possession of fine wools, which are favored by fashion. There was an advance in prices during November of the best Down and half-bred, home-grown wools of 20 cents to 25 cents. Fine wools have reached the previously unheard-of figure of \$2.25. One of the chief reasons for the higher rates paid for fine home-grown wools is the enormous increase in the consumption in the hosiery industry. There can be no question regarding the favor which is shown for Suffolk wool by manufacturers of fine hosiery fabrics. The wool is just the right length and fineness to give superior results as regards softness, spring and warmth. The various crosses of Suffolk sheep, too, yield fleeces of the kind desired. During the wool sales I made a careful inspection of the half-bred Suffolk lots, and in every instance they commanded the top prices of the day.

Moffat's Hereford Sale

One of the opportunities of the year to Hereford men will take place at Brandon, on March 3, during winter fair week, when 40 head of young bulls and females from the Echo Grove Stock Farm herd, belonging to James I. Moffat, Carroll, Man., will be offered for sale at public auction.

This is the second draft sale from this well-known herd, last year's first sale being one of the most successful events ever held in western Canada.

While the class of cattle offered last year were of a very high average, both in breeding and quality, the offering, this year, will far surpass its predecessor in both respects. Twelve young bulls, all fit for service, and around 30 young females, mostly two-year-olds, and all bred to Mr. Moffat's well-known stock bulls, will afford an opportunity to obtain Herefords of a high standard, which should not be overlooked.

Buyers are going to find at this sale animals which will represent a step forward in their herds. Quite a few of the good things will come from the Echo Grove show stock of Mr. Moffat's own raising, and from some of his well-known prize winners; others come from well-known States' herds, and interspersed with Van Nutta and Wallace Good breeding. The individuality of all the lots is no less pleasing than their pedigrees.

The cattle will be offered in good shape, and will grow into something worth while. The Guide's representative had an opportunity of looking over the offering lately, and would urge a large and representative attendance for this sale, especially of men with smaller herds and new beginners. The proprietor of the Echo Grove herd has been in the Hereford business all his life and his reputation is behind his cattle. Watch future issues of The Guide for further particulars. Catalogs will be ready about February 15. Send for one now.

Poultry R.O.P.

The following western poultry breeders have entered birds in the Record of Performance, instituted by the Dominion Department of Agriculture:—

S.O.W. Leghorns.—L. A. Campbell, Calgary, Alta., 10; W. J. Pickard, Wetaskawin, Alta., 10; Manitoba Agricultural College, 111; H. E. Rose, St. Vital, Man., 12.

White Wyandottes.—University of Saskatchewan, 28; Manitoba Agricultural College, 5.

Barred P. Rocks.—University of Saskatchewan, 35; Manitoba Agricultural College, 25; H. E. Rose, St. Vital, Man., 10.

Rhode Island Reds.—J. W. Gordon, Manitou, Man., 35; Manitoba Agricultural College, 5; University of Saskatchewan, 46.

Buff Orpingtons.—L. A. Campbell, Calgary, Alta., 4; University of Saskatchewan, 11.

The Grain Growers' Guide

THICK, SWOLLEN GLANDS

that make a horse Wheeze, Roar, have Thick Wind or Choke-down, can be reduced with

ABSORBINE



also other Bunches or Swellings. No blister, no hair gone, and horse kept at work. Economical—only a few drops required at an application. \$2.50 per bottle delivered. Book 3 R free. **ABSORBINE, JR.**, the antiseptic liniment for mankind, reduces Cysts, Wens, Painful, Swollen Veins and Ulcers. \$1.25 a bottle at dealers or delivered. Book "Evidence" free.

W. F. YOUNG, P. D. F., 495 Lyman Bldg., Montreal, Can. Absorbine and Absorbine, Jr., are made in Canada.

VETERINARY COURSE AT HOME

Taught in simplest English during spare time. Diploma granted. Cost within reach of all. Satisfaction guaranteed. Have been teaching by correspondence twenty years. Graduates assisted in many ways. Every person interested in stock should take it. Write for catalogue and full particulars. **FREE** London Veterinary Correspondence School. Dept. 57 London, Ontario, Can.



Clipped Army Horses

Veterinarians of the Allied Armies ordered regular clipping of the horses and mules in all branches of the service. They were clipped with a Stewart No. 1 Machine. YOUR horses also will do better work if clipped. Get a Stewart No. 1 Ball-bearing Clipping Machine \$12.75; \$2.00 down, balance when received. Or write for catalogue.

CHICAGO FLEXIBLE SHAFT COMPANY, Dept. A171 12th St. and Gen. Ave., Chicago, Ill.

The Keystone Dehorner

The Department of Agriculture has found that dehorning cows adds to their milking value. The **KEYSTONE DEHORNER** is mentioned in the 1915 report (page 131) as the most effective instrument for the purpose. Write for Booklet.

E. H. McKENNA, 219 Robert Street, Toronto, Ont.

POULTRY LEG BANDS & 25c EAR TAGS FOR STOCK

Poultry Leg Bands and Ear Tags for Stock. Tag your stock and mark your poultry. Best means of identification for Sheep, Cattle and Poultry. Name, address and number stamped on tag. Samples and prices on request.

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CANADIAN NATIONAL RAILWAYS

A Sketch of the part its lines have played and will play in the Development of Canada.

Transportation is the only commodity a railway has to sell; it is also probably the most important of the factors that make for success on a Western Canada farm. There is, therefore, the best of reasons for the closest kind of co-operation between the railway and the grain growers. Of the 14,000 miles of Canadian National Railways distributed over the nine provinces of Canada, some six thousand miles traverse the farming areas of Western Ontario, Manitoba, Saskatchewan, and Alberta—through the wooded, watered, rolling lands of the north as well as the great flat treeless plains to the south. The rails of the C.N.R. and the farms of the west are in conjunction throughout. Success for the one means that there has been success for the other. If the crops be light or suffer from adverse conditions, the tonnage dwindles on the railway and financial losses are experienced by both the producer and the marketing agency. It is then clearly essential that not only a cordial, but a sympathetic bond, should unite the farm and the railway. The western lines of the publicly-controlled system of railways are in a position to aid enormously the efforts of the farmers of the west, and, likewise, the producers are so situated that if they travel and ship over the lines of the Canadian National Railways the results must be of the utmost value in establishing the success of public operation of railways in Canada.

Reports from the Industrial and Resources Department go to show that during 1919 an exceptionally large number of newcomers entered Canada as a result of their activities. The majority of these were from the United States where the "National" Lines have a competent staff keeping our cousins advised of the possibilities north of the 49th Parallel. Most of those that came were possessed of considerable funds and bought land on a generous scale, close to existing railway lines. But a considerable number trekked into the newer areas, in the wake of new steel or in advance of it, and new towns have therefore come into existence, and old ones stimulated to a surprising degree.

Beginning a New Era

The western lines of Canadian National Railways have, since their inception, participated to a striking degree in the great task of opening up the fertile lands of the west to settlement. The first piece of line constructed in 1896 between the village of Gladstone and a wheat field—which has since grown to be the substantial town of Dauphin—was built to afford rail transportation facilities for a district which had found itself handicapped hopelessly without them. The needs of the one contributed to the well being of the other. The settlers secured their railway, and the railway, by dint of economical operations, met all its charges and carried over a substantial surplus the first year of its service.

That was the beginning of the expansion of the C.N.R.; it also was the opening of a new era in the development of western Canada. The lines of the railway were spread over the virgin lands of the west with remarkable rapidity. As they forged ahead settlers began to pour in and production increased on a scale never witnessed before in Canada. Elevators and shipping centres rose as by magic throughout all sections of the western country. These villages grew to be towns and even cities, all because the enterprise of the railway opened up to the plough of the homesteader virgin acres that were prolific beyond the dreams of avarice. Permanent prosperity cannot be created unless there is the proper relationship between natural resources and the people who would take advantage of the opportunities they present. Canadian National Railways make no claim that its lines alone are responsible for the great growth of western Canada. But that they have contributed, and contributed to a substantial degree, to the development of the prairie provinces is abundantly evident.

It is a great system. Splendidly located lines serve vast areas in process of development and potentially great. Every province in Canada, practically all the great ports, and the majority of the manufacturing and commercial centres in the great producing areas, and those sections from

which a large part of the increased production in the immediate future will come, are served by Canadian National lines. When the lines of the Grand Trunk System are placed under its Board of Directors the Canadian National Railways will be a flexible system of rail communication that is easily the most comprehensive in Canada, serving every important centre in the Dominion. This complete system will tap the American frontier at the points through which heavy traffic flows, and there is no doubt that the National Railways in Canada will be a factor of tremendous importance in the development of the country generally.

Sketch of C.N.R. Territory

The older lines of the C.N.R. throughout the Maritime Provinces have served to develop the chief industries there, while the newer line from Moncton through Quebec city, via the Quebec Bridge, across the hinterland of Ontario and Quebec to Winnipeg, is already serving busy centres of activity at numerous points. In Quebec and Ontario the Canadian National serves practically all of the busy centres, with the exception of those located in the Western Ontario Peninsula, and these will be included when the Grand Trunk lines are added.

Canadian National lines traverse the great pulpwood areas, and their trunk line services bisect the fertile areas known as "The Great Clay Belt," now only at the threshold of development, and certain to be the scene of marked activities in a pioneering sense during the next few years. The exports of pulp and paper have risen until this industry assumes a position of leadership in the commercial life of the Dominion. In northern Quebec and Ontario vast forest areas remain for the mill men, and vast sums of money will be the immediate fruits of lumbering operations. This is certain to follow—is indeed being developed concurrently—in the Clay Belt lands, and settlers are dotting the new central northern lands with clearings and cabins. The excellent main line services of Canadian National Railways will be an important factor in making settlement easy in the northland, and the forty thousand people now estimated to be working to the north of Halleybury and east to the Ontario-Quebec boundary, should be doubled before another five years have passed. The areas contiguous in Quebec Province, likewise, are passing through the pioneering stage, and considerable settlements and thousands of hardy pioneers are established already in the Clay Belt lands. One has but to travel along the northern main line of the C.N.R., between Quebec and Winnipeg, to realize the extent of the growth now, and no prophet is required to state the possibilities of that expansion in the immediate future.

In Alberta, lines of the Canadian National serve the great coal-bearing areas which are being more and more drawn upon to furnish fuel for the people throughout the Prairie Provinces. In the northern districts of the three Prairie Provinces the lumbering operations of the plains are being carried on, and mills dot the northern lines of the Canadian National in Manitoba and Saskatchewan. However, it is when the Divide in the Rockies has been crossed and the great forests of British Columbia reached that the real forest resources of the west are met with. Although agriculture has attained to a place of no mean worth in Canada's Pacific Coast Province, it is to lumbering, fishing and mining that the people of the farthest west province look for their chief prosperity. When the prairie farmers begin to "fence" in earnest it is to British Columbia they must look for their cedar posts. Likewise, as permanent homes and farm buildings are constructed the forests of the western slopes will furnish most of the lumber. Already a considerable traffic has been built up by the Canadian National in this commodity, and it is not difficult to see that when the prairie wheat begins to move in part to the Pacific cargo boats, lumber should prove a ready means of supply for the box cars returning eastward. Moreover, with lines through the mountains as easy in gradients as those in the Prairie Provinces, it is altogether probable that most of the western wheat will reach Vancouver over the lines of the pub-

licly-operated system. The easy gradients of the C.N.R.—or as it must seem to the layman—should make it easy for the management to handle such tonnage economically in large quantities. Surely the future lies bright ahead of the system serving lands with all these manifold potentialities. At present the country is young and the people few in number, but it will not be so for long, and Canadians may expect to find the earnings of their own lines and the expansion of the chief industries of the country advancing sympathetically as years go by.

Scenery Along National Lines

In scenery also, the National Lines have a great heritage. In all the world the lines are few that can boast of the waters, the valleys, the forests, the rocks, the lands and mountains of the C.N.R. Starting from the Sydneys with their splendid harbor one has but to think of Cape Breton Island and all the marvellous colorings of the Bras D'Or Lakes, and the picturesque scenery of that historic region rise in the eye of the mind. Consider Halifax with the wealth of tradition and stirring events of the last few years; and St. John with her busy docks and famous Reversing Falls. Think of the tide-flats, the Bore on the Petitcodiac at Moncton, the beautiful valley of the Metapedia, the Bay of Chaleur, the valley of the St. Lawrence, historic Quebec and Montreal with its mountain, its tunnel, its busy wharves and teeming industries. The line of the Canadian National running to Lake St. John and Chicoutimi in Quebec, passing through Valcartier Camp, where the immortal First Contingent from Canada was taught how to shoot, serves one of the best-known vacation areas in all Canada.

Then, from Montreal one skirts the Ottawa to the Capital City of the same name. There the lines divide, one cutting to the southward, through the romantic Rideau Lake country to Toronto, the other passing through the northern areas of Algonquin Park to the west, where it is joined again by the trunk line from Toronto, which has traversed the very heart of the Muskoka regions, famed internationally as a summer resort of real worth.

Westward from beyond Sudbury the National lines are laid through the wooded lands and rocks to the north of the Great Lakes, and run beside the Nipigon waters—lake and river—for many miles. From Lake Nipigon the northern main line cuts across the intervening lands in Winnipeg, while the southern swings to the southward, skirting the blue-green waters of Lake Superior to Port Arthur and Fort William. To the west of these twin cities the rails run through a labyrinth of waterways, the Quetico Park, and the Rainy Lake Region—along the route followed by Wolseley's volunteers when they forged west to repress the first Riel Rebellion—to the capital city of Manitoba. Beyond Winnipeg the lines of the Canadian National radiate like spokes from the hub of a great wheel. Here again is a choice of route and scenery. In the south the great flat plains have a potent appeal to many a globe trotter, while the great, rolling lands of the northern route appeal to such as may find rest and charm in viewing a varied landscape.

But beyond Edmonton, in Alberta, to the busy beautiful city of Vancouver, in British Columbia, is a stretch of more than seven hundred miles that for scenery will compare favorably with any similar mileage anywhere. It may be that the Rocky Mountains in the Yellowhead Pass region, traversed by the C.N.R., may lack some of the colorings of the peaks in the same range farther to the south. But what is missing in color is more than made up in nobility and grandeur. Swiss guides have described this section of Canada as "forty Switzerlands rolled into one," and no one can disagree in justness to the country. The glorious Valley of the Athabasca is alone worth a trip around the world to see, and when, in addition, there are such peaks as those of Mount Edith Cavell and Mount Robson, to mention only two vast masses of rock and ice, towering more than eleven and thirteen thousand feet, respectively, above the sea, the first in Alberta and the last named in British Columbia, it is easy to understand why travellers become enthusi-

astic about the northern Yellowhead Route. These delightful vistas are in no wise marred. The rails lie mostly in the open valleys, and the sublime, eternal mountains hold attention undivided until night makes useless further straining of the eyes—unless your trip should fall upon a moonlight night, and you can watch the splendors of the mountains from stateroom window.

In the morning the train is speeding along by the turbulent North Thompson, and the play of the waters of this river, and of the better-known Fraser farther south, is at the car window throughout the passage of British Columbia to Vancouver. The gorges and canyons of the Fraser are more widely known, as rails have skirted their margin for many years, but they are not more fascinating than some of those of the northern river, and the final day of the transcontinental run on the Canadian National is never lacking in scenic appeal.

However, a transcontinental journey is not complete on reaching Vancouver. There are still the straits to be crossed by steamer, and the rails again used for the inspection of the beauties of Vancouver Island and of Victoria, favored city of the western coast. Of Victoria those who have been there ask no further word. Those who have not must see the city to form an adequate conception of its charm.

Ships for a National Fleet

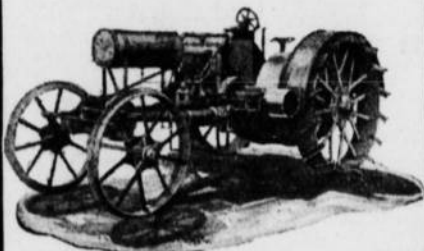
A great, truly efficient Canadian transportation system would not be complete without ships, for the trade of the nations, to meet the charges upon the people, must seek markets far beyond the confines of Canada. That is being provided for. The Federal Government has authorized a programme of steel merchant ships, which, operating in conjunction with Canadian National Railways, will carry the products of Canada to all the ports of the seven seas. Twenty-five ships are in service now, from St. John, Halifax, Montreal (in season) and Vancouver, to the United Kingdom, the West Indies, South America and Australasia. They carry lumber, general merchandise and foodstuffs, and a varied list of manufactures on the outward voyage, and return with the products Canadians import from the various ports touched at. Construction on the vessels remaining is being pressed vigorously, and it is altogether likely that before the close of 1920 the entire fleet, aggregating 360,000 deadweight tons, will be in the National service. Together, the rails and ships under public direction will constitute one of the greatest experiments in transportation attempted by any State.

During 1919 great progress has been made in co-ordinating the staffs and lines and equipment at present comprising the publicly-controlled system of transportation. One year ago the 60,000 workers on the pay-roll of the National lines thought, automatically, in terms of Canadian Northern or Canadian Government Railways, according to geographical location. In twelve months there has been a decided change. Employees generally now think in terms of Canadian National Railways. While that has involved the loss of identity of the two older systems it has evolved a sentiment for the amalgamated lines and represents a big accomplishment for so short a time. The President has declared his gratification that such a happy, healthy development has been achieved, and concludes emphatically that it augurs well for the success of the grander "National" scheme. When the lines of the Grand Trunk System shall have been merged with those of the C.N.R. for public service in transportation on a gigantic scale, the mileage will be easily the biggest in the country, and with the "National" ships, the publicly-controlled system will be a tremendous factor for the expansion of Canadian trade. The Board of Directors and the management will devote themselves to the problems of administration well aware that the eyes of Democracies all the world over will follow this experiment into public control by corporation methods, with the keenest interest possible. The success or failure of the Canadian effort will doubtless have an important effect in many other quarters towards the determination of the policies for the control and direction of transportation affairs.

STINSON

Adjustable Front Truck
4-Wheel

18-36 Tractor



A Typical Owner's Letter

Oakville, Man., January 15th, 1920
Tractioneers Ltd.,

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St. Boniface, Man.

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I had considerable trouble with the plows, which makes it bad to gauge this exactly. I like the Stinson because she is so simple and so strong, evidently being built to work and not for looks. I intend to put two of them to work this spring.

Yours truly,
(Signed) COLIN H. BURNELL.

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DR. ROBINSON

Dentist and Associates

Birks' Building, Smith and Portage
WINNIPEG, CANADA.

Crerar on National Policy

Continued from Page 19

per cent.; and I think it is a matter of historical record that the Opposition in Parliament at that time was prepared to take the other side of the question to whatever the Government advanced, and so the chances are if the Mackenzie Government at that time had raised the duties to 20 per cent. the Conservative opposition would have opposed it, and we then might have had a reversal of the avowed policies of the two political parties in this country for the past forty years. At any rate, be that as it may, the fact remains that the principle of protection has been embodied in our fiscal policy in this country for the past forty years.

Now the farmers of this country, by their pronouncement upon the question, have stated their belief that the Principle of Protection is not only economically unsound but morally indefensible. (Applause). And if it is economically unsound and morally indefensible, is it not time that we were considering a change in regard to it?

Principles of Protection

What is protection? It is nothing more or less than the power of the state used through the agency of law to make it difficult for goods to come into a country, consequently conferring a special privilege on the person within the country who manufactures such goods. That is what is meant by protection. The argument supporting it is that we must build up home industries and in order to encourage home industries erect a tariff wall and make it difficult for goods to come in and the more difficult you make it for goods to come in the more easy it is for your home industry to develop.

If that is a logical argument, why not carry it to a logical conclusion? If it is a good thing to raise barriers against goods coming into the country in order that we may encourage and build up home industries, would it not be a better thing to keep the goods out of the country altogether and raise our tariff wall so high that nothing whatever could come in? The home manufacturer then certainly would enjoy a complete control of his home market because no goods could come in. (Applause). This is clear. But if we brought about that condition of affairs what would be the next result? If we brought no goods into the country no goods would go out of the country. That follows inevitably, because in the great business of international trade goods are paid for with goods; there is nothing clearer than that.

Suppose we are sending goods out of the country, our wheat and our bacon and beef and cheese and whatever manufactured products we have, such as pulp wood and paper and anything else we produce, how are we going to be paid for them? Will they be paid for in gold? They might if the country to which we are sending them has the gold—but we could store up a lot of gold and would be willing to pay in gold what could we do with it? It

would not do us any good. We could fill our public buildings with it; but that would not help to clothe and feed, and keep us, and consequently one of the most elementary things in economics that cannot be controverted is that goods must be paid for with goods.

The Home Market

Consequently, I repeat again, if we take no goods into the country then we shall send no goods out of the country. But what would be the result of that? Now, the argument of the protectionist—and there are many who honestly believe in this principle—is this, that it is necessary to build up a home market, that by keeping manufactured goods out of the country you encourage factories at home to start up operations and develop and grow. That these will employ labor and the labor thus employed will consume the produce of the farm, and consequently we will build up home markets. Let us see how that applies to the agricultural portion of this country. And I mention this fact now because a very noted Canadian took the privilege, after I had spoken in Toronto on this question a few weeks ago, to contribute two and a half column article to the newspapers of Toronto exposing the fallacy of my argument and bringing forward the contention that the only safety for the farms of Canada in the future was to have a population in Canada that would consume all the wheat they produce. (Laughter).

If this home market is to be of any to us, it would certainly require to be a market that would consume all our produce. Take the staple article of food—I think I am not far from the mark when I say that to-day a normal average crop of wheat in the Dominion would be about three hundred millions of bushels. It is equally a well known fact that the consumptive power of the Canadian people will not run more than six bushels per head; in other words, that six bushels of wheat per head would feed our population. If we have a population of, say, eight millions of people, which is generally admitted to be about the number, then forty-eight or fifty million bushels at the outside would feed our home population. In other words, that is the extent that our home market would take it, but we require also some wheat for seed and for feed purposes for livestock.

Assume we use another fifty million bushels for this purpose, which I think will be ample, and we have one hundred million bushels out of our three hundred million that would be consumed at home. What are going to do with the other two hundred million bushels? Are we going to wait until we have a population in Canada that will consume it? How long would it take? Why, we would require to have a population of fifty millions of souls to consume at home what Canada produces annually in wheat alone.

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of the world, and that is what we have been doing and that is what we will have to continue doing for a long time to come. Take meat products; we have the same condition of affairs.

Take cheese; why the provinces of Ontario and Quebec export annually from one hundred and eighty to one hundred and ninety million pounds of cheese to the British market. How much of a population would we require in Canada to consume this amount? Then we have all our other products that I could mention. To my mind there is nothing more absolutely absurd and fallacious than this notion that we must maintain a protective tariff to build up factories that will build up in turn a consuming population, thus creating at home a market to eat all our farms produce.

Handicaps to Agriculture

But is it economically a sound thing to raise these artificial barriers at the present time particularly? How is this country going to escape from the financial burdens that face it? There is only one way; we must develop our natural resources and we must develop them much more wisely than we have done in the past. After all, wealth comes primarily from old mother earth in some form or another. It comes from the agriculturist who tills the field, or the lumberman who takes the forest trees and saws them into lumber, or the fisherman who pulls the fish out of the sea, the lake and the stream, or the miner who digs the coal and gold and silver and copper and other precious metals out of the bowels of the earth—in no other way.

And I would direct this thought to the business men of this city and this country. Is it not to your interest, is it not to the interest of every business man in this province, to have agriculture in this country prosperous? You have not been particularly prosperous in the last year or two because you have met with very serious crop failures, but if it is a good thing to grow crops and to grow more crops, is it not a good thing to make it as easy as possible to grow crops?

What is the sense of adding to the expense of agricultural implements when you are bringing people into the country and praying them to get on to the land and develop it and produce? (Applause). Is there any economic wisdom in the policy that adds to the cost of the implements and tools for production in this country? I think not; and those who are students tell us that the only way we can get out of the difficulties we are in is to work harder and produce more, and we are going to work harder and produce more with implements and tools, the cost of which is increased by the operations of the customs tariff, and is it necessary? I submit that it is not.

In the year 1914, the implement manufacturers of Canada sold in the markets of the world over eight million dollars worth of implements manufactured in this country. Now, when they sold their implements in Great Britain, in South America, in Australia and South Africa, they sold them in open competition with implements manufactured in every other country in the world, and I am proud of the fact. I am glad to know that the Canadian implement manufacturer pushed out into these countries and sold his goods in competition with the American manufacturer, the British manufacturer, and the German manufacturer at that time. I am glad to know that he had the initiative and the enterprise to do that but, Sir, if he could sell his implements in the markets of the world, in competition with the world, why cannot he sell them at home in Canada in competition with the world? (Applause). He only thinks that he cannot; that is the only reason.

Breeds Corruption

But there is another aspect of the influence of protection I would like to touch upon for a few moments, and that is the moral aspect of it. I believe absolutely in this that we cannot confer upon any section of our people a special privilege without doing an injustice economically and morally to the rest of our people (applause), and a law and legislation that is morally bad cannot, on any ground, be justified. Now, what has been the effect of the application of the policy of protection in this country on the government of this

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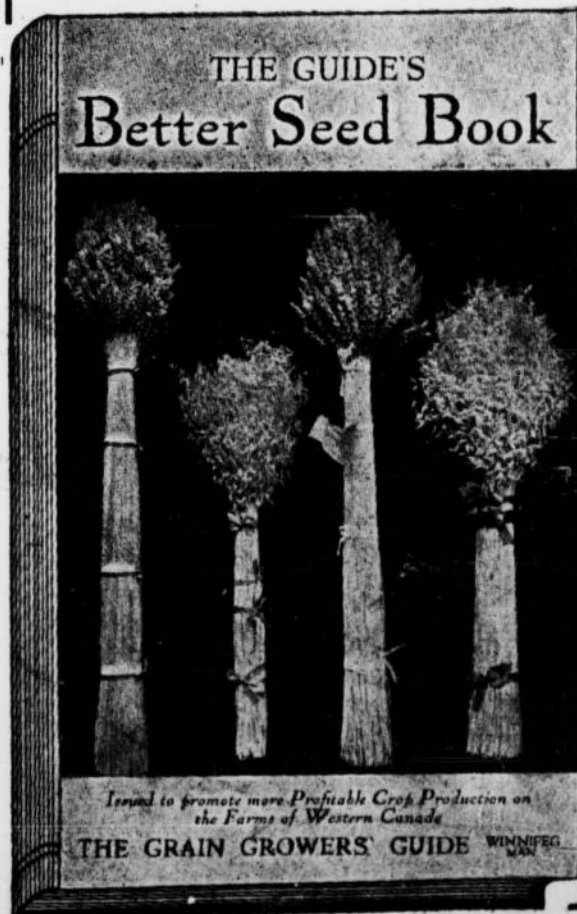
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The gain for the year of \$20,495,209.00—over 22%—is more than \$850,000.00 greater than the totals of the gains for the years 1916-7-8 combined.

Assets December 31st, 1919	-	\$24,672,343.28
Increase	-	\$1,216,542.39
Premium Income, 1919	-	4,320,645.49
Increase	-	\$824,974.74
Interest Income	-	1,297,344.58
Increase	-	\$66,925.43
Paid to Policyholders	-	3,069,826.07
Increase	-	\$541,699.90

The payments to Policyholders for profits were \$516,339.55, or, \$91,343.91 more than in 1918.

Full Annual Report and Financial Statements are in the Press, and will be furnished upon request.

J. K. MACDONALD,
President.

country? Well, in the first place, it has been the most fruitful source of political corruption in this country. (Hear, hear).

Will not the manufacturer who is basking under the protection of a tariff that adds 32½ or 42½ per cent., as the case may be, to the cost of goods coming into the country desire to retain it? He has fought at every turn every effort to reduce it. He desires to retain it, why? Because it enables him to put more money in his pocket from the business he is carrying on. It has limited the field of competition to him and when he is in that favored position there is no question, with but rare exceptions, of what his outlook is, or his politics are. He wants to see the tariff protection maintained and he is willing to pay the price to have it maintained, and if we could uncover in this country for the past 40 years the source of political campaign funds in our federal elections, we would probably find that this was one of the most fruitful streams of supply. (Hear, hear). And this thing has led to other consequences in our public life.

Combines and Mergers

I venture to say that there is not a country in the world where the formation of combines and mergers has been so rampant in the last 15 years or 18 years as it has in Canada. A country cannot follow a wrong course in these matters without ultimately paying the penalty of law and harvesting the consequences of a wrong policy. The operation of law is as inexorable in this regard as it is in regard to the individual, and you know that individually you cannot follow a wrong course without having to pay the price or the penalty in some form or another.

Look at some of the mergers that have been formed in Canada in recent years. I could give you quite a lengthy catalogue of them if I wished to take the time to do so, but I may be permitted to give you one or two instances. Take the Canada Cement Company as an instance—and I am not holding it up as particularly bad. Prior to 1910 there were a great many cement companies in Canada operating in different parts of the Dominion. A rather clever gentleman from the maritime provinces conceived the idea of linking these all up into one concern to be known as the Canada Cement Company, and practically all the local cement companies in Canada came into this merger with the exception of one or two. What happened?

Watered Stock

These concerns put their tangible assets and even some of them their goodwill at a very fair value into the mergerized concern, taking in exchange for these preferred stock and bonds in the aggregate to the extent of about fifteen million of dollars. No fault perhaps could be found with this because, on the face of it at any rate, dollar for dollar was given in value; but for every dollar of preferred stock and bonds that were issued by the Canada Cement Company to pay the concerns who went into the merger for what they put into it, a dollar of common stock was issued against which nothing of a tangible value was put in, with the result that while there were about fifteen million dollars worth of bonds and preferred stock issued to these various companies that came into the combination, there was also about fifteen million dollars' worth of common stock issued to the same people for nothing. Now, what happened?

The management of the Canadian Cement Company—naturally you could not expect them to do anything else—set about to make this common stock earn dividends and give it a value. Controlling the field in Canada, they quickly eliminated the few independent companies that were seeking to do business and with this result, that the common stock that at the time of its formation had not a single dollar of value has at times since been paying as much as six and seven per cent dividends and has attained, I believe, a value as high as \$65 to \$70 per share, and is freely traded in the public stock markets. In other words, this fifteen million dollars of water has been transferred into a value based upon its earning power of many millions of dollars, and all this has been done with a protective tariff of ten cents a hundred on cement coming into this country

Upon Your "To-day" Depends Your "To-morrow"

WHAT you can save to-day is the foundation upon which you will lay your life-work.

The man with capital, even be it small, is the man who is ready when opportunity arises.

The savings habit is not as easy to acquire as the spending habit, but most things worth while require an effort to attain, and the capital for your day of opportunity can only be obtained by hard work, economy and saving.

Open a Savings Account with the Bank of Toronto. Your Savings are protected by a strong national institution, and earn a fair rate of interest without risk of loss.

THOS. F. HOW
General Manager

THE BANK OF TORONTO

Capital \$5,000,000

Reserves \$6,793,983

from foreign lands. Now, what is the morality of that? Is that building up a home industry in this country or is it inclining many of our citizens to a course that is absolutely wrong? Because I maintain this, Mr. Chairman, the moneys that went into payment of dividends on this watered stock and the value that has been given to it has been simply taken out of the cement users of this country over and above what was a fair amount for a legitimate return on the investment (applause) and all with the active assistance of the customs tariff on cement.

The Canning Combine

This is only one case. Take the Dominion Cannery as another illustration. A number of years ago the Dominion Cannery organization was formed. It embraced then almost all the canning establishments in the province of Ontario. There were, however, some independent canning companies that stayed out of the combine. I remember, six years ago in Toronto, an old gentleman who was in the canning business in a small way coming to me, from an eastern town in Ontario. He desired to establish direct connection with the farmers of western Canada, whose organization he had heard was carrying on co-operative work, in order that he might sell his canned goods direct. He was not in the combine and, he said, "There is no other way I can live if I can't do that," and he told me how he was undersold and that wholesale companies were practically compelled to cut his business out because they were dependent on the larger concern that was turning out these goods. The net result of it was that in less than two years his canning establishment went out of business and practically every independent canning establishment in Ontario today is out of business. Again, the same old story—preferred stock and bonds issued and bonus of common stock, and the net result of it was this, that the farmers of Ontario, who produced the raw material, the peas and the beans and the small fruits and vegetables that went into these canning processes, received less for what they produced than they had before, and the consumer paid more. It cannot be successfully denied that one of the most potent agents assisting in bringing about this state of affairs in Canada has been the protective principle in our tariff, consequently I think that the farmers of this country are on safe ground when they lay down the assertion that this thing in principle is not only economically unsound but morally indefensible as well. (Applause).

Producing the Revenue

But there is still another aspect of it. We are asked this question: "If we do away with the protective tariff, how are we going to make up the public revenue?" Well, last year, the year ending 31st March last, this country got from customs revenue about one hundred and fifty-million dollars. The finance minister, in the slight changes brought about in the budget last year, estimated as a result of decrease in business and of these changes, that there would be a considerable falling off for the present year in the revenue under the customs tariff. I noticed in the newspapers a few days ago a statement from Ottawa to the effect that the amount of customs tariff collected this year will exceed that of last year, so that the people of Canada have paid more this year than they ever paid before in taxes through the customs.

Now, I maintain that it is a matter of vital importance to the citizens of a country how their public revenues are raised. It is not a question—I have said this before and I say it again—it is not a question so much of the amount of taxes you raise in a country as the manner you raise them, and if you study the record of the past, you will find that some of the greatest revolutions in all history have been caused by the manner in which taxes have been levied upon the people. (Hear, hear). How have we raised our revenues in the past?

There are very few of us that imagine, for instance when we have gone into the merchant's store and bought a pair of shoes, that we have contributed by

that very act possibly some two or three or four dollars of the price on the shoes—and goodness knows they are high enough these days—to the public revenue of the country through the customs tariff. Do you realize that when you buy a suit of clothes you have been taxed 35 per cent on it? If you are buying goods that have been imported, you pay it indirectly into the public treasury, but if you are buying goods which have been made from cloth manufactured in Canada, well, it goes into the manufacturer's pocket; that is the difference. (Applause).

To Encourage Honesty

When the public revenues are collected in this way, in the indirect manner, we do not have the interest in public business on the part of the average citizen that we should have. We do not follow as closely and intelligently how our money is spent, and I maintain that this method of raising revenue has led to extravagance and corruption in government in this country, simply because the people have not been as alert and as awake as they would have been had they contributed those taxes in the direct manner. When you put your hand in your pocket, as any citizen of this country does when he has to take out of his purse once a year his contribution to the federal taxes, you are going to follow much more closely and intelligently how your money is being expended than you are when you pay them in the other way. One of the surest means of securing economy and honesty in public administration is to have the taxes raised in the direct manner, and one of the surest ways of having extravagance and corruption in public administration is to raise them in the indirect manner. (Applause).

At this time, when we are facing the burdens that lie before us, it is of vital importance not only how our public revenues shall be raised but also how they shall be administered. In the few addresses I have been making throughout parts of this country in the past two or three months I have emphasized this fact, that prior to the war the debt of Canada was \$333,000,000; today it is close to \$2,000,000,000; indeed if it does not exceed that. Before the war we found \$135,000,000 a year of public revenue sufficient to meet all our federal requirement. From this time on, for many years to come, I am convinced that we shall require to raise at least \$325,000,000 a year in this country.

Taxes on Consumption

There is another fact that I would like the manufacturers of this country to ponder. In Canada, according to the figures of Professor Skelton, of Queen's University, who is one of the clearest investigators in this country, 80 per cent. of our federal revenues are raised by taxes on consumption, that is, on things that people use for their daily existence, while in the United States only 20 per cent of its federal revenues are raised by taxes on consumption. I put this question to the manufacturers of this country who are seeking to build up their industries: "How long are you going to retain your efficient working men in this country when the burden of indirect taxes rests so much more heavily upon them than it does upon his American cousin? When wages are equal, if not better, in the United States than they are in Canada?" The result is this, we talk about increasing our population. The actual figures will disclose this, that in the last 11 years there are more people that have gone to the United States from Canada than came into Canada from the United States. Those are facts that are worth pondering over. We cannot build up this country in this artificial way or upon this artificial basis, and consequently the declaration of the Canadian Council of Agriculture, of the farmers of Canada, is sound economics, and I am convinced is in the best interests of the future of our country.

"John," asked the teacher, "What is a synonym?"

"A synonym," said John, "is the word you use when you can't spell the other one."

THE BANK'S POSITION

As at 30th November, 1919

Loans	-	-	-	\$283,870,274
Deposits	-	-	-	393,605,156
Total Assets	-	-	-	479,644,205

497

THE CANADIAN BANK OF COMMERCE

PAID-UP CAPITAL	:	:	\$15,000,000
RESERVE FUND	:	:	\$15,000,000

Eastern Canada

WITH more than 390 branches in Canada we have rounded out a system that offers to merchants, manufacturers, agriculturists and individuals in Eastern Canada a complete banking service. Our Western connections afford special facilities for expeditious banking.

Union Bank money orders are a safe medium for sending money through the mails.

ASSETS EXCEED \$174,000,000

UNION BANK

RESOURCES EXCEED: OF CANADA
\$174,000,000 Head Office : : WINNIPEG

Fires Break Out

and thieves break in. Don't risk the first, or invite the second, by keeping money in the house.

Put it in The Merchants Bank, where it will be safe from loss—always available—and earn interest at highest current rates.



THE MERCHANTS BANK.

Head Office: Montreal. OF CANADA Established 1864.

With its 36 Branches in Manitoba, 46 Branches in Saskatchewan, 86 Branches in Alberta, 12 Branches in British Columbia, 138 Branches in Ontario, 44 Branches in Quebec, 1 Branch in New Brunswick, and 2 Branches in Nova Scotia, serves rural Canada most effectively.

WRITE OR CALL AT NEAREST BRANCH.

TO THE FARMER

Perhaps you need more machinery. You may require more stock. You are planning to sow a larger acreage.

Visit our nearest branch. Discuss your plans with the manager. This bank is prepared to loan money to reliable farmers

250

IMPERIAL BANK OF CANADA

180 Branches—82 Branches in Western Canada.

The Canadian Tractor

The Wonderful \$1200 Tractor that has been in such demand that the factory production until June is completely sold.

A Year of Testing

This Western Canadian machine, with less parts in it than are on your binder, was first proved a success over an entire year of testing before we even told Western farmers we had a tractor. Now all patents are obtained and the machine is now ready for the hardest work on your farm.

Production is a big factor but not everything

We aim to make each Canadian 14-28 Tractor a perfect machine, and one that will stand the same strains, tests and inspection given our first machine. Quality before quantity—you are going to have a Western Canadian Tractor with a value and a cost none can equal.

Delivery

Get our literature and make a study now of the Canadian 14-28 Tractor. We have just issued a new circular, showing the Canadian in detail. Write for it.

Alberta Foundry & Machine Co. Ltd.
Medicine Hat, Alberta

TURNER *Simplicity* TRACTOR

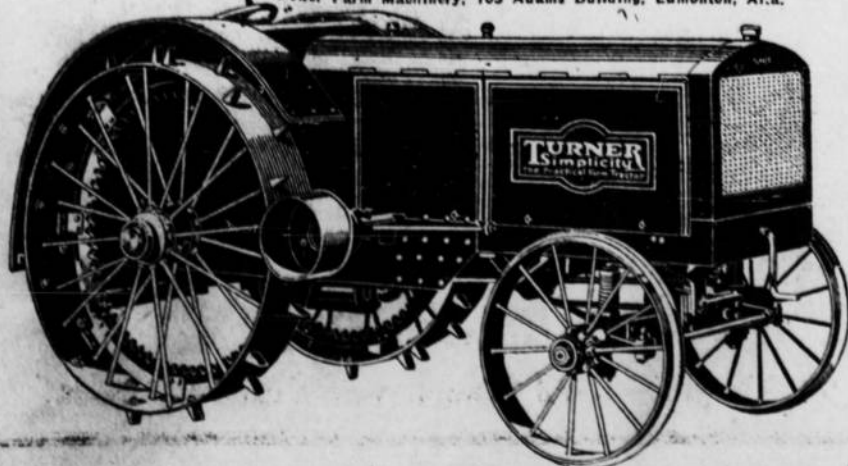
COST. There are many angles from which a farmer may view the cost of his tractor. First Cost, Operating Cost, Upkeep Cost, Cost per Horse Power, per Hour, per Year of Life. When finally analyzed, cost depends on the quality and construction of the machine.

The Turner Simplicity 12-20, or 14-25 Tractor gives the lowest cost per hour, per year of life, because it is built on the most simple lines. A child could operate The Turner. Its simplicity naturally means low operating and upkeep costs. You should view The Turner from the Cost basis.

Write for our circulars giving full description and illustrated details of The Turner Simplicity.

The Turner Tractor Sales Co. Ltd.
195 Portage Ave. E. Winnipeg

Alberta Distributors:
Power Farm Machinery, 103 Adams Building, Edmonton, Alta.



Clay Products Plant at Medicine Hat, Alberta.

Industrial Development

Continued from Page 9

The butter-making industry also falls in the first class. The creameries in the prairie provinces have done a great deal to encourage mixed farming until today western Canada not alone produces all the butter it consumes, but exports large quantities, whereas only ten or 15 years ago the West was depending upon imported butter.

In a like manner the oatmeal mills, the malt plants, and the linseed oil mills in western Canada convert the oats, barley and flaxseed grown by western farmers into oatmeal, malt and linseed oil, and in so doing produce by-products for farmers' use, all the oilcake produced finding a ready market with the dairy farmers of the West.

Pickle factories established in western Canada furnish truck farmers and market gardeners with a large market for their produce. In fact, sufficient vegetables of the description required by the pickle factories in the West have not been grown in western Canada, and manufacturers have had to draw vegetables from other countries and districts in Canada to obtain sufficient raw materials to furnish western Canada with the pickles its people consume.

Steel and Iron

In the other class of factories, viz., that which exists for the purpose of filling the needs of the people of the West, comes the iron works and foundries, engaged in making bridges, agricultural implements and vehicle parts, elevator machinery. Such plants, both large and small, are scattered throughout the entire West. In fact it is not generally recognized that western Canada possesses some of the most modern and best-equipped plants of this kind in Canada. These factories depend upon raw materials imported from other countries and districts and manufacture a list of articles too long to enumerate. In most cases their output is determined by the requirements of the district they serve and in many cases they manufacture machinery which is patented by a local farmer for use in the immediate district.

Then, too, there are a large number of factories engaged in making gasoline and kerosene engines, dry-cell batteries for use therewith, pumps, pump jacks, windmills, feed grinders, fencing, feed and water troughs, grain picklers, corrugated pipe metal siding and metal buildings to meet farmers' needs.

Numerous other factories are engaged in the manufacture of cement, brick and other building materials, such as sash, doors and joiner's work generally, interior and exterior finishes such as paints, varnishes, etc., of which western farmers are large purchasers.

Western Canada also possesses many factories turning out splendid clothing, shirts, overalls, gloves, sweaters, and knit goods generally. These all make a specialty of producing goods to meet the western farmers' requirements.

There are also several factories in western Canada making incubators, brooders, etc., and bee-keepers' supplies to meet the ever-increasing demand of western farmers for these articles.

Bag Factories

All kinds of bags required on the farm are made in western Canada by four large factories located in Winnipeg. These plants also supply the millers' demands for bags for their flour, oatmeal, malt and oilcake.

The surplus fats from the packing houses find a market with the soap factories, of which there are several in

western Canada, and these in turn furnish a large range of soaps peculiarly fitted to meet the needs of western Canada, where in certain districts the water requires special soaps.

Like most people, western Canadians like their sweets, and to meet this demand numerous factories in western Canada turn out a complete line of biscuits and confectionery, some of the best candy in the world being made right on the western prairies.

With the sudden termination of hostilities manufacturers were confronted with the difficulty of converting their plants from the manufacture of war materials to those required in peace pursuits. The energy and ability which enabled them to make such a record in re-organizing their factories for the production of war materials has enabled them to again turn their plants inside out to meet peace conditions.

While it is impossible to cover the entire field in the space available in this article, it is interesting to notice a few cases illustrating the recent development in industrial establishments in the three prairie provinces.

Western-made Tractors

One Alberta foundry, the Alberta Foundry and Machine Company, which devoted most of its energies to the production of munitions, has been reorganized for the manufacture of a farm tractor, to be known as Canadian. These tractors, which have been tried out by western farmers, have been proved by them as fulfilling their needs, and it is confidently expected that the large staff of workers previously employed on munitions work will find profitable employment in making this tractor. This is only one instance of many.

During the past few months the Alaska Bedding Company added two floors to their factory at Winnipeg for the manufacture of beds and bedding. This company, which has branch factories at Calgary and Vancouver finds a ready market for their large line of Alaska products in western Canada.

The Western Wheel and Foundries, Limited, are erecting a plant in St. Boniface, which will be devoted to the manufacture of car wheels for western consumption. The capacity of the plant will be about 100,000 car wheels a year, and it is expected that operations will commence in the near future. The location of this industry in St. Boniface will tend to eliminate the heavy transportation charges imposed on wheels shipped West from Toronto. While there is no immediate prospect of an increased demand for car wheels, indications are that eventually, with the construction of more cars, the demand will become stronger.

Knitting Factory Growing

Another Winnipeg factory, which has had to enlarge its premises is the Northland Knitting Company. Two additional stories are now being superimposed on the present three-story factory in order to give the company much needed elbow room. The original building, erected in 1912, was, at the time, far too large for requirements. Since then, business has grown to such an extent that the turnover is now six times what it was in 1913. The company's principal product at first was sweaters; in 1914 they started to make workmen's mitts and gloves on a larger scale, and two years ago they bought out a moccasin plant and have now developed it into a thriving department.

With the capacity of existing factories



On the Farm of A. Morrison, Marieton, Saskatchewan.

reported to be unequal to meet the present heavy demand for beds and beddings, a new company has been formed in Winnipeg to engage in the manufacture of mattresses and other bedding. This is the Parkhill Bedding Limited, who have purchased a considerable piece of property on Notre Dame Avenue West and are now erecting the first unit of their factory.

The packing plants in western Canada, which depend upon the farmer for their raw materials, have also increased their capacities during the past year, and it is hoped that prairie farmers, realizing the prospects for continued demand for livestock products, will raise sufficient stock to keep these plants going to capacity.

The Dominion Linseed Oil Company, Winnipeg, which produces linseed oil, oil cakes, meal, etc., has recently doubled its capacity.

A new enterprise is that of the Marshall-Wells Company, who are building a paint factory in St. Boniface.

The Elgin Gas Motor Company, connected with the Elgin Gas Motor Company, of Elgin, Ill., is being established in Winnipeg for the manufacturing of the Hafa gas engine. This plant is being equipped with the latest machinery and about \$65,000 has been spent in preliminary operations. This will be the first gas-engine factory in Winnipeg and will give employment to about 45 hands.

Potash and Salts

The Salts and Potash Company of Canada, Limited, which is located in Kitchener, Ontario, has installed an evaporating plant at Kaskari, or Houghton Lake, Saskatchewan, for the development of raw material. The lake contains about eight square miles of a substance known as "astraknit," which in its crude form has no commercial value, but which can be used, after being treated, for manufacturing purposes. A spur line has been run into the lake from the Prince Albert branch of the Grand Trunk Railway, and the evaporated salts will be shipped to Kitchener. For the first six months the plant will handle from 100 to 150 pounds of crude salts from the lake every week. The products to be manufactured consist of Epsom salts, Glauber salts, magnesia, carbonate, potassium chloride, potassium sulphate and medicinal salts.

It is expected that the 6,000-barrel mill, which is being constructed in East Calgary for the Alberta Flour Mills, Limited, will be completed in time to operate on part of the 1920 crop. In addition to the mill there will be an elevator capable of storing 1,000,000 bushels of wheat. The mill site contains an acre of ground, with 2,000-foot frontage on the main line of the C.P.R.

Rice Brothers Knitting Mills, Winnipeg, manufacturers of sweater coats and knitted novelties, have enlarged their plant and expect to make further enlargements in the near future.

The Winnipeg Ceiling and Roofing Company, Limited, Winnipeg, are erecting a brick addition to their factory. The company is also building a distributing warehouse at Regina.

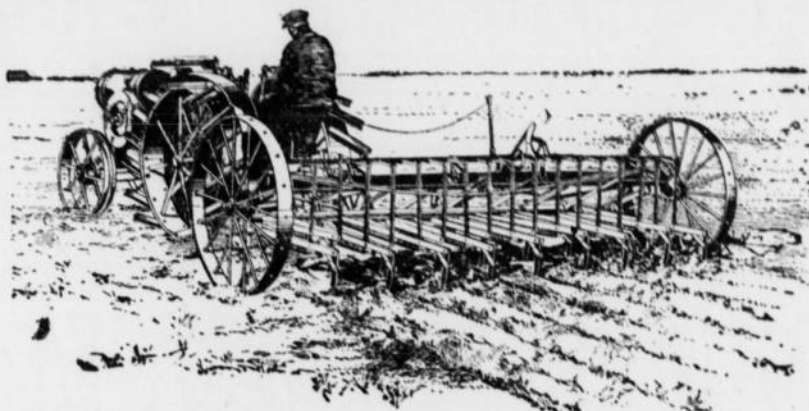
The Magnet Metal and Foundry Company, Limited, which organized in Winnipeg in 1918, is increasing its capital by \$50,000. This plant consists of a foundry, blacksmith shop, machine assembling and pattern shop; also office and storage buildings. It manufactures farmers' hardware and light implements.

The Western Film Manufacturing Company is a new concern recently established in Winnipeg for the manufacture of moving pictures. They intend to specialize on industrial, educational and agricultural pictures.

The Builder of Weedless Seed-beds



No. 2 International Cultivator



A CLEAN seed-bed is essential to good crops. And good crops are essential to your prosperity. Naturally, you are going to plant your crops in a clean seed-bed—a seed-bed entirely free from weeds. To do this you require the right kind of equipment.

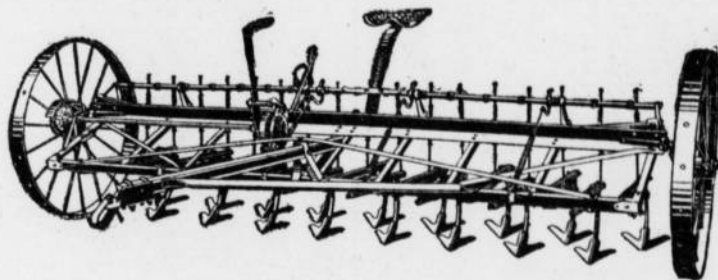
The No. 2 International Cultivator was designed especially for making weedless seed-beds. It is, without doubt, the most efficient tool of its kind ever made. It is provided with wide teeth of the stiff-tooth style that overlap, one behind the other, so that none of the ground is missed. It gets every weed!

You can cultivate deep, cutting off the weed roots, or you can cultivate shallow without stirring the sub-soil. A special pressure spring attachment

keeps the teeth to their work and any unevenness of the ground is followed very readily.

For the farmer of the West who cultivates large acreages, the No. 2 cultivator is made in a 12-foot size, which is especially adapted to tractor operation. This size is regularly equipped with tractor hitch and power lift—it is only necessary to pull a rope that trips a dog and the teeth are raised from the ground automatically. Another jerk on the same cord lowers the teeth again. The smaller sizes—6, 7½, and 9-foot—can be furnished with power-lift at a small extra cost.

The No. 2 International Cultivator is just the tool you will want for effective summer fallowing. The catalog that we have ready to mail you will give you complete descriptive information on this efficient implement. Write to the nearest branch house—and call on your local International agent in regard to your tillage requirements.



INTERNATIONAL HARVESTER COMPANY

OF CANADA LTD.

HAMILTON CANADA

WESTERN BRANCHES—BRANDON, WINNIPEG, MAN., CALGARY, EDMONTON, LETHBRIDGE, ALTA., ESTEVAN, N. BATTLEFORD, REGINA, SASKATOON, YORKTON, SASK.
EASTERN BRANCHES—HAMILTON, LONDON, OTTAWA, ONT., MONTREAL, QUEBEC, QUE., ST. JOHN, N. B.

DAVIDSON'S

PREMIER

Stoves and Ranges

"MARATHON"

"LEADER"

"ARGUS"

"ROYAL"

"CHIEFTAIN"



One or another of these models will suit your taste and fit your purse. Cooking troubles are unknown where Davidson's ranges are used.

Write us for particulars and name of store in your locality where a display may be seen.

The Thos. Davidson Mfg. Co. Limited

MONTREAL WINNIPEG TORONTO

There's Money in the Movies

Invest Your Funds in

7% Cumulative Preferred Shares

— OF —

Allen's Winnipeg Theatres Ltd.

Offered at par value of \$100 each, together with a Bonus of 25 per cent. of Common Stock with each purchase. Stock amply secured. Assets comprise the principal Motion Picture Houses of Winnipeg. Net annual earnings very large. A safe investment with a definite high yield, and the probability of increased profits through the Common Stock Bonus.

FULL PARTICULARS ON REQUEST

EDWARD BROWN & CO.

BOND DEALERS

Dept. G., 296 Garry St.

Winnipeg

We buy and sell Bonds for our own account and any statements made with reference to Bonds sold while not guaranteed are our opinion, based on information we regard as reliable, being data we act upon in purchase and valuation of securities.

WHEN WRITING TO ADVERTISERS PLEASE MENTION THE GUIDE

**Practically Every Man,
Woman and Child in
Canada Wears or Uses**

Dominion Rubber System Products

Some may be unconscious of this fact. Others may not realize the magnitude of the manufacturing facilities of this great Canadian organization.

The Grain Grower who is using "DOMINION TIRES" and "DOMINION INNER TUBES" on his automobiles may not realize that he can get the same satisfactory "Dominion Rubber System" quality in THRESHER BELTING and in "FLEET FOOT" Shoes for field work.

The Woman who wore "FLEET FOOT" white Oxfords and Pumps during the summer holidays may not realize that she can get the same dependable quality in a HOT WATER BOTTLE bearing the "Dominion" trademark.

The same care and patience—the same high ideals—brought to bear in making these Dominion Rubber System Products the most satisfactory that can be bought, are also exercised in producing "RINEX" SOLES and "CAT'S PAW" RUBBER HEELS, "DOMINION RAYNSTER" Waterproof Rain Coats for men, women and children, and RUBBERS for every member of the family, even to tiny white rubbers for the baby.

The Trademark below marks the milestones along the street of successful shopping. It goes on everything made in Rubber; it is an assurance of quality, service and value. Look for it.



**Dominion Rubber System Products are sold
by the best Dealers throughout Canada**

Industry on a Peace Basis

Continued from Page 8

that 1920 will be equal to a year of normal prosperity. High taxation, high money rates and high rates of wages, together with general labor unrest are given by him as the largest impediments to new enterprises being instituted. The prospects for expanding Canada's export trade are considered to be excellent, especially if the co-operation of the government can be enlisted to provide transportation at commercial rates. Mr. Workman says "the necessity for increasing export business is very apparent in view of the heavy annual interest obligations which Canada will face for many years to come."

Steel Company of Canada had a battery of Wilputte by-product coke ovens installed in 1918 which were put in operation last year. The installation of this splendid equipment is one of the steps taken by Steel of Canada that will improve its position in the coming years. A production of 1,100 tons of coke per day is the capacity of these ovens, and tar, ammonium sulphate, toluol, etc., is saved. Algoma Steel Corporation has made provision for better facilities for structural steel, as well as material for carbuilding and ship construction. These mills as well as those of Hamilton, Montreal, New Glasgow and Sydney are considerably more active than they were six of eight months ago.

The construction of the plant at Ojibway on the Canadian side of the Detroit river by the Canadian Steel Corporation, subsidiary of the United States Steel Corporation is of special significance to the Dominion. Several millions already have been expended on development of a townsite for 25,000 people, for construction of huge ore and coal docks close to 4,500 feet in length and 202 feet apart, with sufficient draught to accommodate the tremendous ore carriers that ply the Great Lakes. Either two or three groups of open-hearth furnaces in series of 14 will be constructed, each group of which will be capable of producing 750,000 tons a year. Giant blast furnaces are now in process of erection and at least two will be in operation this year if present intentions are carried out. The entire plant with all its finishing mills will not be finished for at least four years more, and construction work is impeded by scarcity of labor.

Production of Tinplate

The most important development for Toronto was the purchase of the British Forgings plant by Baldwins, Limited, of Swansea Wales. The Baldwins Canadian Steel Corporation has been formed by the Welsh interests and the plant is being re-constructed with a view to the production of tinplate, and black and galvanized sheets. The two latter products are now made in Canada, but all the tinplate has been imported, principally from the United States, in recent years. This constitutes a most important advance for Canadian industry. The forgings plant was built by the Imperial Munitions Board for the production of forgings from shell turnings and scrap. Ten six-ton Heroult electric furnaces were installed, and the Toronto

plant was the largest of its kind in the world. Baldwins are planning to make Canada self-supporting with respect to the important commodities mentioned above. Construction involving an expenditure of several millions is now in process and an output of 200,000 tons is sought eventually. A home market will be provided for scrap, and Canada will be more self-contained with respect to essential products.

There are signs that the steel industry will be developed on the Pacific coast, and the coming year will probably see definite projects launched.

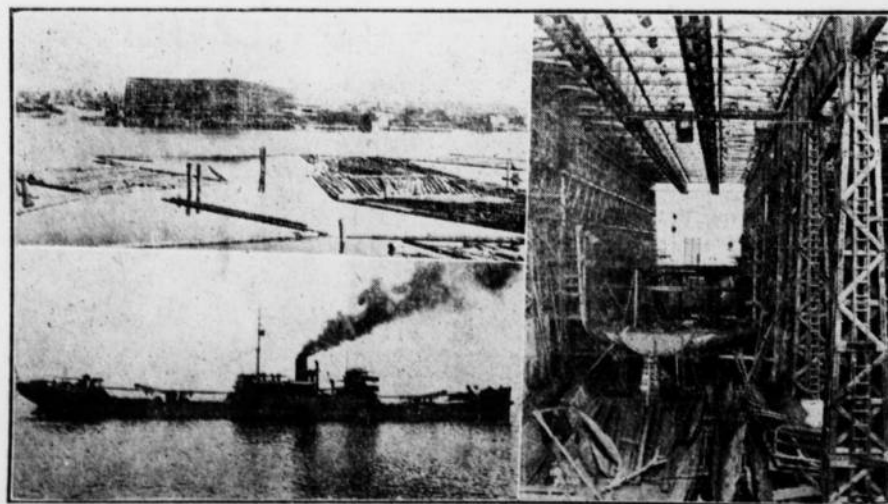
Dominion Bridge Company, Montreal, was engaged during the war in the manufacture of iron-working machinery for the production of munitions. It has since turned its attention to the manufacture of pulp and paper mill machinery, which is a new venture for Canada. Good progress has been made in this work and important contracts have been taken. Canada has been a large importer of this machinery to the extent of about \$1,500,000 annually. The growing importance of the paper industry makes it appear that Canada's requirements in this line will increase.

Canada Locomotive Works, Kingston, has turned from the production of heavy shells to its regular car-building activities, and it has orders for home and export that indicate lively conditions in this industry during the period of re-adjustment.

Canada General Electric Company and Canadian Allis-Chalmers, Limited, found itself in rather a disadvantageous position through the cancellation of orders to the value of several million dollars, which upset those organizations for the time being. Adjustments were made as rapidly as possible to take care of normal lines of manufacture with such success that most of the departments of those plants are now fully occupied. One million dollars was set aside during the year for the enlargement of plant and warehouses.

The Automotive Industry

The automotive industry has witnessed quite remarkable development. The existing companies manufacturing in Ontario found themselves short of raw materials, and labor was so restive that it was impossible to regain production at full capacity. There were opportunities for export, and some 17,000 of the 39,000 cars manufactured by the Canadian Ford plant were shipped out of the country in spite of the very large domestic demand. A production of at least 50,000 cars is aimed at for this year. Several accessories, not made hitherto in Canada, including spark plugs in Windsor, and radiators, transmissions and differentials in St. Catharines, are now being produced in quantity. Rear axles are being made in Chatham. The manufacture of these commodities forms part of the readjustment of companies formerly engaged in war work. Willys-Overland, Limited, of West Toronto, turned from the making of airplane motors and munitions to the production of Canadian-made motor cars. A complete turning over, which took up a period of several months was required



Shipbuilding Activities at Vancouver, B.C.

The illustration shows a distant view of shipyards; a keel being laid down; and a Vancouver-built freighter under her own steam.

to prepare for peace manufacturing. General Motors Corporation, at Walkerville and Oshawa, are spending fully \$10,000,000 for the production and assembling of Canadian-made cars, thus contributing to an important extent to the establishment of an automobile industry for the Dominion.

Cluff Ammunition Company, Limited was organized during the war and was purely a munition concern. It has lately turned over to the production of gasoline tractors, and it is aimed to dispose of these machines in export markets as well as in Canada.

At Port Colborne, Ontario, a large refinery was erected by the International Nickel Company of Canada. This was not completed until a few months before the armistice was signed. There is a smaller demand for nickel than during the war, and production at the mines is at a lower rate. The prospects of this industry are bright, however, and it is worth noting that the after-war period finds Canada the scene of nickel-refining operations on a large scale, constituting an important economic advance. Most of this refined metal goes for export.

Soda ash is an article of vital importance to the world's industries, ranking second only to pig iron, being used in a wide variety of industries, ranging from manufacture of glass, leather, steel, to chemical uses, etc. Canada had imported this alkali, principally from the United States, to the value of approximately \$2,000,000 a year. The erection of a modern plant costing several millions by Brunner, Mond, Canada, Limited, at Amherstburg, Ontario, was effected during the latter stages of the war. The enterprise failed in its first object, which was the manufacture of soda ash for war needs because the plant was not completed in time. It has a most important commercial future, however. Soda ash is now being produced from hitherto practically unexploited resources of the Dominion in sufficient quantities to satisfy the Canadian market. There was great difficulty in securing necessary supplies of soda ash from the United States and Great Britain during the latter stages of the war. Canada's complete dependence on foreign sources for its soda ash has now been remedied. The plant was designed to meet all estimated Canadian requirements, but the steadily-growing development of Canadian enterprises with their corresponding demand for this alkali product makes enlargement a problem for the near future.

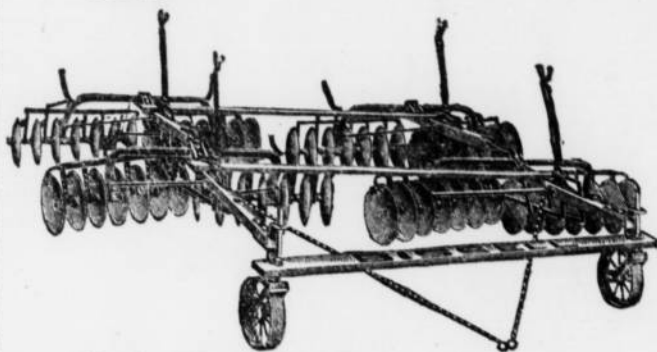
Shipbuilding Activity

The shipbuilding industry in the early part of the year absorbed a considerable part of the labor that was released from munition-making activities. The construction of steel vessels for the Canadian government merchant marine has furnished most of the activity in the shipyards equipped for this work. Some 18 craft have already been launched and put into commission on the various trade routes, operating from Canadian ports and carrying the Dominion's products to practically all parts of the world. Until December the vessels ordered by the government were two of 2,800 tons, six of 3,500 tons, seven of 3,750 tons, seven of 4,350 tons, eight of 5,100 tons, twenty-five of 8,350 tons, and two of 10,500 tons. The total tonnage launched for all customers, including the Imperial Munitions Board, was about 425,000 tons dead weight. The wooden shipbuilding industry of British Columbia was flourishing for the greater part of the year on the French order for 20 wooden craft. This was completed in November, and the outlook appears to be rather uncertain in this line, so far as permanence is concerned. The steel shipbuilding industry of British Columbia is the centre of most of the activity in this department of endeavor at present. Much depends on the policy of the Dominion government with regard to giving contracts for additional tonnage, in determining the prospects of the shipbuilding industry for the coming year. It has played, however, a large part in aiding the country through its first and most difficult phase of reconstruction. The production of boilers and other equipment, the rolling of ship plates, etc., are complementary industries that have been stimulated by the shipbuilding activity.

The textile industries have worked

Continued on Page 70

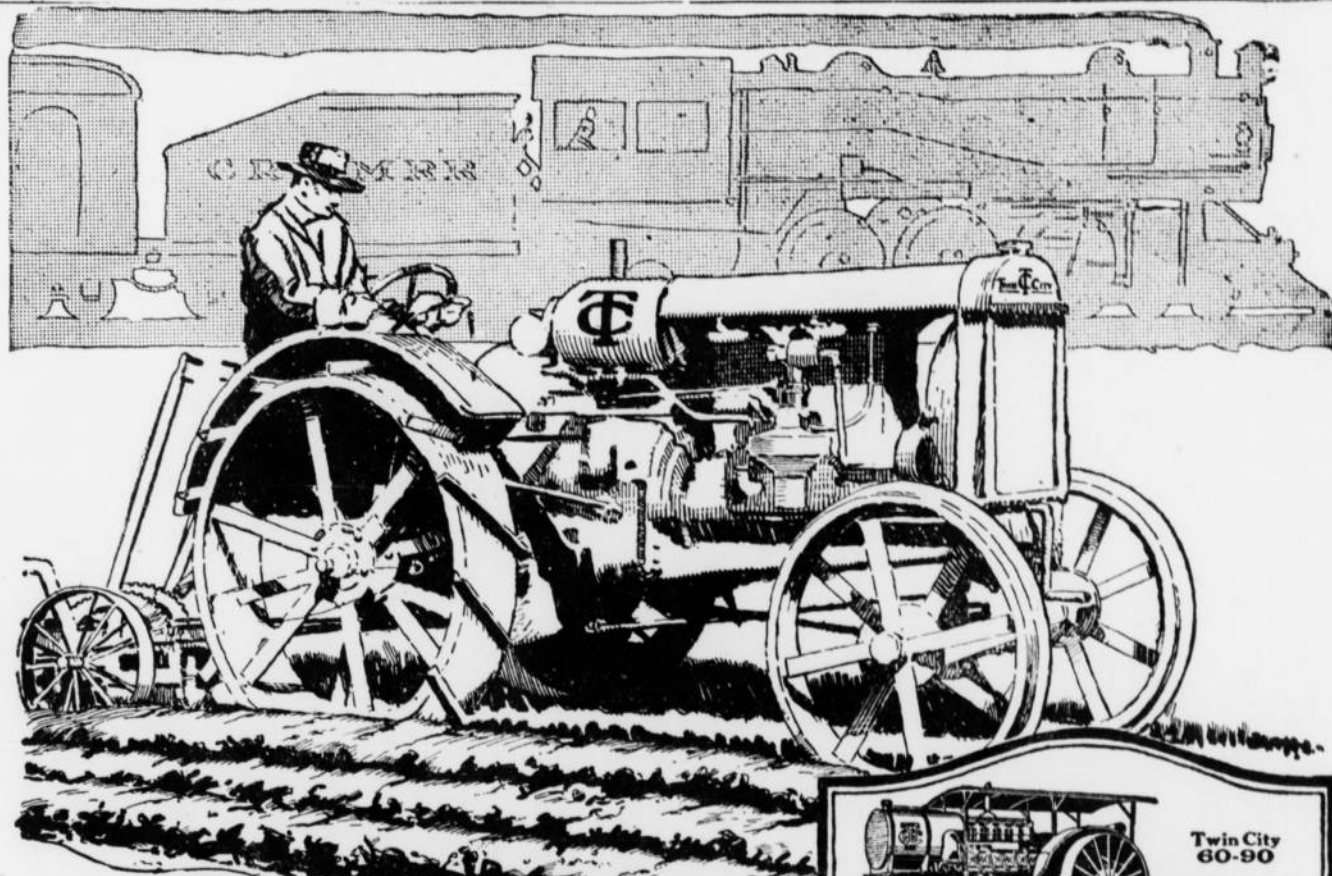
Bissell Combination 4 Unit DISK HARROW



T. E. BISSELL CO., LIMITED
Elora, Ont. Factories at Elora and Ingersoll, Ont.

This illustration shows the 4 Unit Disk combination for use with Tractors. The units can be made up of 12, 14 and 16 plate Harrows. While long gangs cannot cultivate uneven ground, this combination has the advantage of being able to cultivate centre ridges, and the short gangs, which are flexible and conform to uneven ground, follow down to cultivate the depressions made by the tractor wheels. In passing over a stone or obstruction the gangs pass over naturally without strain to the Harrow or injury to the Disk plates. Ground cultivated by these Harrows is left level and smooth. Easy to turn about at corners; quickly detached and the units separated for use with horses or light tractors. A most serviceable outfit.

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Minneapolis Steel & Machinery Co. of Canada Ltd.

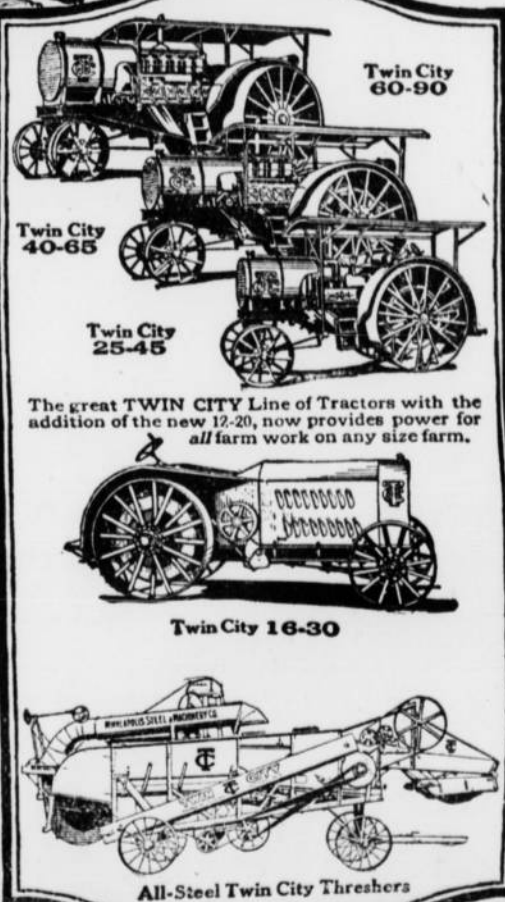
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**Kill the Smut—
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Now, as never before, it is vitally important that your seed grain be right when you plant—that you make your farm yield every kernel of grain it can produce. The country needs it—the whole world depends upon it—and it will pay you well.

Before you plant, treat your seed with .

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to kill all chance of SMUT. It costs so little and it means so much that every live, wide-awake farmer will insure against Smut and great crop losses.

Get your order in early so that you may be sure of getting "Standard" when you need it.

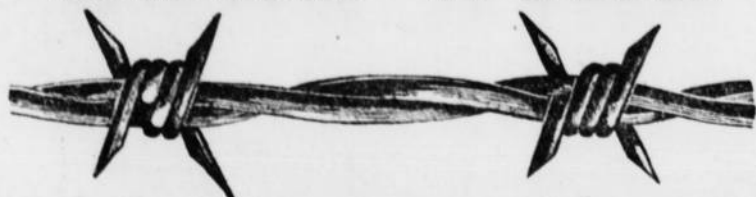
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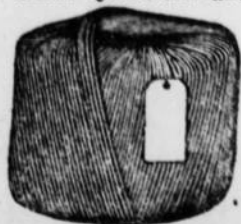


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Organized Labor and Capital

Continued from Page 10

over of industry by the workers do not represent the serious thoughts of organized labor in this country. That does not carry with it that autocratic control of industry by capital will be unprotestingly accepted as necessary, or that the present method of haphazard production wherever possible profit is in sight is the proper condition for industries in the future. The time has arrived when industrial development must harmonize with the needs of a community, and the incentive to production must be to meet the needs and comforts of the people generally, and also that the first charge upon industry must be the well being of the workers employed, and the return on capital and profit must take a second place.

Must Not Remain Industry's Servants

Briefly put, the workers must cease to be the servants of industry, and industry must be made the servant of the people. This may sound idealistic but it is not so. Changes in this direction are taking place in many ways at the present time. Perhaps one of the most far-reaching and important developments of industry by the workers is the growth of the co-operative movement. At the present time this movement is, with few exceptions, yet in its infancy in Canada, and it is to Great Britain and European countries that we must look for the actual demonstration of what it has been able to accomplish in this direction. Started as it was to cheapen the means of distribution of foodstuffs it has rapidly grown until today, the British and Scottish Wholesale Co-operative Societies control huge industrial plants, manufacturing shoes, clothing and other staple requirements; they control their own steamships carrying produce from all parts of the world, and have now reached out establishing and operating plantations, farms, etc., in distant parts of the Empire, whereby the raw materials are handled and distributed in their manufactured state without the intervention of any private profit-making corporation. This movement is illustrative of what can be accomplished by the workers for the workers.

The activities of the co-operative movement need no detailed explanation to the Grain Growers of the West, who, through their own organizations, have so ably demonstrated what co-operative action can accomplish. Like other laborers, the farmers found it necessary to organize themselves to combat the domination and control by financial trusts and industrial combinations, and from that foundation the farmers have built up organizations throughout Canada that are exercising a vast influence on the future development of this country. Another rapid development towards democratic control of industry is illustrated in the rapid growth in the sentiment in favor of public ownership and operation of public utilities and basic industries.

It was recognized that private capital was not developing the natural resources of this country as quickly and efficiently as they should be developed. The forests and mineral resources, and the great water powers which are capable of being harnessed to provide water power for farms and factories,

were largely lying dormant, and our entire national development being strangled in order to provide greater profits for the few who held the monopoly of their possession. The reaction against this control brought about the demand for the acquisition and development by municipal and provincial governments of the water powers.

Most noticeable in this direction has been the development by the Ontario government, under the Hydro Electric Commission, of the water powers of the province where it is reported that over \$100,000,000 of public money is invested in this development. The federal government, by the acquisition of the Canadian National Railways, added to the lines already constructed by them (the Intercolonial) the further acquisition of the Grand Trunk Pacific, and now the possibility of adding to this huge system, the Grand Trunk Railway, coupled with the building and operation of a merchant fleet, makes the Canadian government one of the largest, if not the largest, transportation operators in the world. Street railway, water works, gas and electric light markets and other public service are now generally owned and operated by municipal authorities. All this change has brought with it a new outlook for the workers involved in the construction or operation of these industries and for the community which is served by them. Profit has been eliminated and service substituted. Capital for development is secured by the issuing of bonds or shares to the people themselves, as in the case of the Victory Loans, etc., the social and working conditions of the workers are being made the first consideration, and when their legitimate requirements have been met the selling price of the commodity is then fixed. In this way not only wages, hours, working conditions, etc., have been generally improved, but in most cases the actual cost of the service has at the same time been materially reduced.

Representation on Boards of Management

Today there is a persistent demand by the workers for representation on the boards of management of these public utilities and it is significant to note that at a convention of the legislative representatives of the Brotherhood of Locomotive Firemen and Enginemen, recently held in Ottawa that Premier Borden, in addressing them, stated that the time had, undoubtedly, arrived when the demand of the workers for representation on these boards of directors should be met and referring to the Canadian National Railway System, said, no doubt the government of Canada would in the near future make such an appointment. The Ontario government is sympathetically considering the request of the organized workers for representation on the Hydro-Electric Commission. On civic boards of management, by both popular election, where they are operated by committees of municipal councils, and where not elective, by appointment, the workers are in a great number of cases given a direct share in the management of the industry. Examples of development along these lines could be continued almost indefinitely.



A View of the Harbor at St. John, N.B., January 20, 1920. A Large Number of Trans-Atlantic Steamers are Shown in Port.

not sufficient has been said to illustrate the change that is taking place in industries employing a very large army of workers.

Still Room for Private Enterprise

The development of public ownership and the co-operative movement will still leave considerable scope for the operation of industries developed and controlled by private capital for some time to come, and it is advisable to more clearly examine how the new status of partnership of the workers can be established in these industries. There is no doubt that much of the present dissatisfaction can be traced to the domination of capital over labor; the desire by those who have invested to protect capital even if need be at the expense of the worker; the uncertainty of employment; the risk of loss to the worker by accident and dislocation of industry over which he has no control; the failure to pay wages adequate to meet the constantly improved standard of living and by no means the least amongst the causes, failure to recognize the human side of the worker and the tendency to treat him merely as a number or an insignificant cog in the vast industrial machine.

Direct and Legislative Methods

Many of these conditions can be dealt with and improved by direct negotiations between organized workers and the employers, whilst others can be more quickly remedied by legislation. Britain and European countries generally are far ahead of Canada in meeting many of these conditions by the legislative method. The establishment of the eight-hour day, adequate provision against unemployment, old age and sickness, pensions for widowed mothers and many other similar measures as yet being talked of in Canada, have already been established by law in other countries.

Canada, however, has made a start and recognizes the necessity of further development in this direction. Factory legislation, minimum wage boards and similar protective measures for the industrial worker, the elimination of private employment bureaus, with their unjustifiable exploitation of out-of-works, and the substitution of provincially-managed bureaus nationally linked up by the Federal Employment Service under the Department of Labor; the attention being given to improvement of educational facilities and technical training, and the fixing of responsibility for the cost of industrial accidents to be borne by the industry through means of a levy collected and distributed to the sufferers from these accidents by provincial workmen's compensation boards, are all measures that are removing some of the matters that previously caused much friction between employer and worker.

The International Conference, part of the League of Nations, which met recently in Washington, reached many conclusions on these questions in an endeavor to set up international labor standards, and Canada, having ratified the peace treaty and become a signatory to the League of Nations, of which this new international labor body is a part, is now morally bound to endeavor to give effect to the conventions and recommendations agreed to at the Washington meeting. This means that the immediate future should see enormous strides made in removing some of the material causes of industrial inequality, but the real root cause of the unrest will still be existent. This cannot be removed either by legislation or by money payments. The worker of today realizes in varying degrees that the time has arrived when the dignity of labor should cease to be a mere phrase, and that those who labor manually should be given an equal status and provided with equal opportunities for development, physically and mentally, that other classes of the community have previously enjoyed, and it is only by a frank acceptance of this and the initiation of some policy which will fully recognize the equal importance of the manual worker with that of management



and the superiority of both over inanimate capital that the real unrest can be removed.

Property vs. Human Rights

In plain words the present concepts of rights must be removed. The rights of property today, given precedence in law and custom, must be made subservient to human rights. In some cases changes in this direction are already occurring, and insignificant though they may seem to the impatient, yet these measures are worthy of review. Undoubtedly, the most prevalent change that has already taken place is in relation to the safety of workers. When safety devices were first demanded by law, great opposition was manifested by employers to the adoption of them. Today, we find that not only are industries generally willing to install up-to-date safety appliances but that the suggestions for these and the methods of their installation are being sought from the workers. Shop committees, having control of safety work are to be found in almost all our large industrial establishments. In some industries these committees have been entrusted with the management and installation of rest rooms, lunch rooms and other conveniences dealing with the health and comfort of the workers in the industry. These safety committees, where established, have often grown into shop councils to which have been entrusted many of the other problems of industry.

The Whitley Industrial Councils

Great progress is being made in England along these lines through the establishment of what is commonly known as Whitley Industrial Councils. Industries in which some 3,000,000 workers are employed are now reported as having established this method of joint industrial control of industry. This progress has been possible because the employers have gained the confidence of the workers by openly recognizing their trade unions as the method through which the workers are represented. This does not necessarily mean that every worker has had to join a trade union, but merely that the trade union is recognized as representing the workers whether they belong or not. There is nothing exceptional in this method being adopted. In Canada, the Canadian Pacific and most other railroads joined together in the formation of a Railway Adjustment Board No. 1, which is credited with having been the means of avoiding serious disputes on the railways since 1914. Representation on this board has been through elected representatives of the trade unions representing the different grades of workers. An ever-increasing number of employers are also recognizing the right of the workers to be represented by officers of their trade unions who are better trained in negotiation than the worker who is compelled to devote his entire energy to his daily employment, giving him little time for the securing of the necessary information to successfully meet the employer or his representative on an equal footing. Unfortunately, industrial councils have been established in Canada that have as their basis the non-recognition of the organizations of the workers, and of the necessity of uniform conditions being established throughout the industry in areas where the worker is liable to be employed. A radical change will be necessary in the composition of such industrial councils to bring them on a similar basis as the British Industrial Councils before the full confidence of the organized worker can be secured, and his method of orderly progress towards joint industrial control by the worker in private industry become generally accepted. It is evident, however, that in this direction lies the possibility of the elimination of many dislocations of industry that now occur.

Profits, for a long time to come will, undoubtedly be the aim of those charged with the management of industry operated by private capital. The

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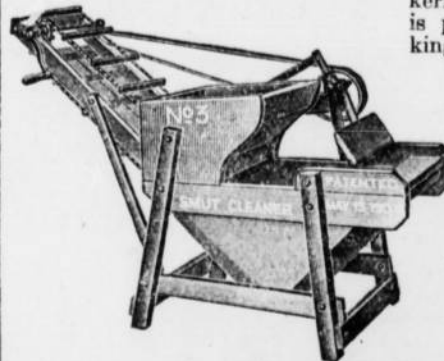
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Speed and large capacity—easy operation—every

kernel given a thorough bath. A skimmer is provided to skim off all smut balls, kingheads and light, foul floating seeds.



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RELIABLE Flashlights are always handy—any time—any place. Invaluable for the home—in the garage—down cellar—for walking along dark roads.

Use a Reliable Flashlight battery—best for your light case, whether called Flashlight or Daylo. As high as 12 hours constant service and 16 hours intermittent service can be gotten out of your large Reliable Flashlight.

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Reliable ignition units will give satisfaction on tractors or any engines that require a steady flow of fat hot sparks.

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active participation of the workers in the councils of management will tend to bring about a desired change. Excessive profits to capital will no longer be tolerated. The government can also aid by legislation which will squeeze the water out of the stock of many existing companies, and make the stock issues proportionate to the actual investment in the industry. One of the great causes of high prices today is the toll demanded to pay dividends on so-called capital which has never existed except on paper. The natural result of the elimination of these evils of present day industrial life will be either an increased remuneration to the wage earner or a reduced cost to the consumer. In either case the same object will have been achieved, the dollar received as wages will bear a closer relation to the dollar demanded for the finished article.

Establishing Labor in Its Desired Status

Summarized, therefore, the problem of establishing labor in its desired new and proper status in industry is a three fold one. If disturbances of a serious and possibly violent nature are to be avoided in bringing about the inevitable changes, each of the three respective parties must recognize their duty and do it courageously and unhesitatingly. Employers must cease their open or secret hostility towards organized workers and must seek their co-operation and advice, initiating willingly all reasonable improvements and accepting the human being as the most important part in industrial life. The workers in return, realizing that power brings responsibility, must continue to prepare themselves fully for the new role that they are destined to play in industry in the future. The government, representing the community as a whole, must stand ready at all times to hold the balance equally between the two parties to industry, at the same time taking the initiative and inaugurating legislation that will tend to eliminate existing social and economic injustices.

Before the introduction of modern machinery each worker labored at his or her task, taking for themselves the product of their own toil or exchanging it with others for articles involving equal labor. The continued development of our huge manufacturing plants of today has changed all that. The enormous cost of modern machinery makes it impossible for an individual worker to own or operate such a machine. Therefore, a condition has arisen in which the destinies of thousands of workers are held in the hands of a comparatively few men. The closing down of a mine, the stoppage of a steel plant, or the cessation of work in hundreds of our large industries means ruin and possible starvation not only to the thousands of workers employed but to the small merchants and others dependent on the earnings of the worker. Conditions of this kind can arise at any time either through carelessness, indifference or mere wilfulness of a few men who control the capital invested.

As an illustration, Henry Ford has more power over the lives of a greater number of people than many kings of the middle ages ever had. Along side the development of political democracy there has been developed an industrial autocracy. The two cannot exist side by side. Man must once more be placed in a position where he can become master of his own destiny. This can be brought about peacefully by encouraging association with his fellow worker and through the growth of trade union organization, allow him once more to reach a position of equal power to that which capital at present enjoys. It is essential that a condition must be established where the willing worker will no longer be faced with the horror of unemployment and involuntary poverty. Labor is not organized to destroy but to construct. The greatest sufferers and the first to feel the effect of any act which would in any way destroy or retard the fullest development of industry are the workers, and, therefore, organized labor as a whole can be depended upon to co-operate to the full in all measures that lead not only to greater production, but at the same time to a more equitable distribution of the results of their labor and the establishing of a continually rising standard of civilization.

"SOLID AS THE CONTINENT"



The business for 1919 further established the strength and security of the North American Life. To-day the financial position of the Company is unexcelled.

Note these record figures:--

Policies Issued and Revived.....	\$22,199,547.00
Total Policies in Force.....	84,597,490.00
Assets.....	18,869,550.26
Payments to Policyholders in 1919.....	2,299,854.97
Net Surplus.....	2,694,338.13

The North American Life is a "Policyholders' Company," over 99% of the profits earned being paid to holders of our policies. Your interests are paramount. If you are contemplating new insurance, see our representative. Get a copy of our 1919 report from him.

NORTH AMERICAN LIFE ASSURANCE COMPANY

"SOLID AS THE CONTINENT"

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D. McCRAE, Lt.-Col.
Vice-Presidents.

Home Office: Toronto, Canada

L. GOLDMAN,
President.



Weighing the Day's Pick in a Southern Cotton Field.

The Clothes We Wear

Continued from Page 21

any perceptible degree. This peculiar feature is caused by the character of the arrangement of the individual fibres in the construction of the woollen thread. The carding operation, the spinning and, in fact, all the mechanical operations through which the woollen thread passes not only tend to facilitate the felting power, but also greatly accelerates it. A worsted thread, on the other hand, is so formed that it is more liable to diminish the felting than to facilitate it. Wool for worsted goods has to go through many more processes than has wool for woollen goods.

Cotton Cloth Manufacture

All the raw material for cotton manufacture in Canada has to be imported. After the cotton has been tested for moisture, the different varieties and staples of cotton are mixed together to get the average quality of cotton used. This mixing is done by a bale-breaking machine which also opens and cleans the cotton. The dirt is driven out and the cotton is carried off by a strong current of air to the scutcher to be further cleaned and opened. This process, to some extent, is continued in the carder, after which the slivers are taken to the drawing frames where the irregularities are minimized by doubling a number of slivers together and attenuating them to the same weight per yard as the count required.

Then there are slubbing, intermediate and Jack frames through which the cotton goes according to the coarseness or fineness of yarn required. But the object of all these machines is the same—to draw out the material to the fineness desired and to twist it sufficiently so that it will unwind without breaking at the next process. There are three different types of spinning frames: the Flyer, the Ring and the Mule, the different types being used for different counts and different kinds of yarns.

For printed calicos the woven goods go to the print works. Today, not only cottons, but the finest silk, coarse burlaps, heavy blankets, rugs and carpeting are extensively and most successfully handled on textile printing machines. The principle involved in applying color to the fabric has not changed since it was devised to take the place of hand block printing. It is rather in the chemistry of the art than in its mechanics that color printing has developed in the last few generations.

One of the greatest expenses incurred in operating a print works is the necessity of constantly carrying on hand a large

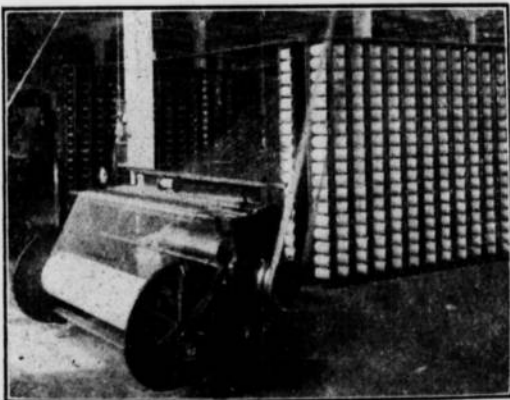
number of copper print rolls to take care of the varied and ever-changing patterns. Today the Canadian housewife can enter any shop in Canada and with every confidence select printed cottons of Canadian make for herself and family. She will find all kinds to suit her needs, from heavy, strong, durable prints to fine mercerised foulards, or light printed muslins, or she can buy the finished garments made from these cloths. The man can buy shirts suited to his work, either for factory or office, made from Canadian-made cloth and printed at a Canadian mill, and each and every quality is as fast in color and as perfect in workmanship as an imported cloth.

Canada, too, has her shoddy factories, but this branch of the industry, which was formerly looked upon with disfavor, is viewed in a somewhat different light today. Now it is practically impossible for an expert, without taking the cloth to pieces and testing it, to distinguish shoddy cloth from the all-wool cloth which it imitates, and, in strength and wearing qualities, the shoddy cloth is not inferior.

Ready-Made Clothing

There is lots of work to be done, however, after the cloth leaves the manufacturer. The "Song of the Shirt" was chanted over the hopeless slavery of the needle wielded by the fingers of tens of thousands of seamstresses, working 17 or 18 hours a day to shape that cloth into garments. Happily that was prior to the time when Canada began to think of making her own clothes. The invention of the sewing machine made the clothing trade what it is. Cutting machines are now in use which can cut thousands of suits in a day.

Canada makes a larger proportion of her own clothes than she supplies of her textile needs. Today the amount of imported clothing and wearing apparel, outside of some few lines, such as silk stockings and women's and children's wear, is comparatively small, though, in large measures the clothing manufactured in Canada is made from imported cloths, some of which by no means, can compare in quality with the home made cloths. Although there are no climatic or aquatic surroundings necessary for the establishment of a clothing factory, as in woollen cloth manufacture, and there is nothing but the absence of labor to prevent any large town becoming a market for the trade, there is a tendency for the trade to centralize in the larger centres of population, and in Canada, as elsewhere, the trade is largely monopolized by



Warping Machine in a Linen Factory.



O.V. BRAND Pure Wool Underwear

O.V. (Ottawa Valley) brand has been worn for fifteen years by Canada's nation builders—on railroads, farms and the Empire's battlefields; in mines and in construction camps. Made for warmth and durability, in medium and heavy weights, in combinations and two piece suits. Guarantee with every garment. Moderate prices.

Sold throughout the wholesale trade only.



"KNOCK-OUT"

The Farmer's All-purpose Gauntlet

A high-class, genuine glove, horsehide faced, with heavy split horsehide back and front, built for the farmer's hand and job. Wax-sewn seams, double welt around thumb, riveted at points of strain. A better \$2.00 glove cannot be bought.

THE "CASEY JONES" DOLLAR GLOVE—

The Best Glove for the Money.
Get a Pair—anywhere

Northland Knitting Co. Ltd.
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Manufacturers of the famous Northland Brand Sweaters, Mitts, and Meccasins.



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for Vacation Lighting
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All makes magnetos repaired and re-magnetized.
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Prompt Service.

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Coal Oil Light TEN DAYS FREE TRIAL

BEATS GAS OR ELECTRICITY

BURNS 94% AIR



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Make your home bright and cheerful, saving one-half on oil. Government and leading University tests prove this wonderful new Aladdin nearly five times as efficient as best round wick open-flame lamps. Burns 70 hours on one gallon common kerosene (coal oil). No odor, smoke or noise, no pumping up, easy to operate, won't explode. WON GOLD MEDAL GUARANTEED. Prove for yourself, without risk, by

Ten Nights Free Trial

that Aladdin has no equal as a white light. If not satisfied, return at our expense. \$1000 given anyone showing us an oil lamp equal in every way to this NEW MODEL ALADDIN.

GET YOURS FREE We want one user in each locality to whom customers can be referred. In that way you may get your own without cost. Be the fortunate one to write first for 10 DAY FREE TRIAL OFFER and learn how to get one FREE.

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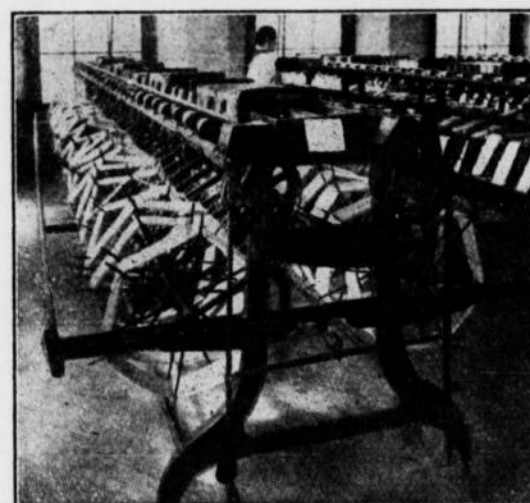
Make big money spare or full time. Our easy selling plan makes experience unnecessary. We start you without money. Sample sent for 10 days trial and GIVEN FREE when you become a distributor.

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people of Semitic origin.

Development of the Clothing Industry

There are 2,000 custom clothing establishments in Canada and 250 clothing factories producing finished clothing to the annual value of over \$70,000,000, and employing from 35,000 to 40,000 hands. The manufacture of clothing is of comparatively recent growth in this country. The war gave it an enormous fillip which no doubt will leave its mark on the future development. In 1913 Canada exported only \$316,709 worth of what is classed in the returns of the Trade and Commerce



Winding Raw Silk.

and sudden increase was solely due to war needs, but the figures show what the clothing manufacturing trade in Canada can do and they may be taken as evidence of a development that is to take place in the not far distant future.

Department as wearing apparel, but in 1915, owing to the demand for soldiers' uniforms, that figure had increased to \$7,344,388, and in 1916 the export value under the same head was \$9,148,878. In 1917 it dropped to \$6,356,750, and since then it has been going down steadily which is only natural inasmuch as the great

The Birdman in Peace Time

Continued from Page 46

trarily, whether eastern or western Canada presents the greatest opportunity for practical commercial aviation. The latter has thousands of square miles of natural aerodrome, an inestimable asset; the former, on the other hand, has no aerodromes of any sort, but, like Great Britain, has a denser population and a relatively large number of towns and cities, closely linked together. In either case, however, ultimate success hinges upon two things: the perfection of ground organization and the use of efficient and safe machines.

As regards this latter item, little need be said. Many of the privately-owned airplanes that were seen here, there and all over in Canada last summer were utterly unsafe and actually dangerous. In many cases they were obsolete types of war-time manufacture, and that so few deaths resulted from their use is a matter on which Canada may congratulate herself. A close adherence to British standards in construction, for the present at least, and a general skepticism as to the reliability of the average airplane will be a sound principle for Canadians to work upon and may obviate the necessity of a large number of fatalities before people appreciate the fact that honesty of construction is, probably, the primary consideration in the purchase of a heavier-than-air machine.

So much for machines. Ground organization is the great desideratum—as essential in western as in eastern Canada and equally indispensable in both. There is no reason why Canada should not, at once, prepare for her future in commercial aviation by the encouragement of municipal enterprise in the construction of aerodromes or landing fields, which should be according to some definite government plan as to size, surface and safe-guards. Air routes which are to be great trans-Canada aerial highways are now being mapped out, but all such routes are worse than useless unless equipped from end to end with strategically-placed aerodromes. Most of these latter should be adjacent to considerable centres of population, should be manned by efficient staffs of mechanics and should be equipped to receive and care for machines landing thereon at any hour of the day or night. Given such a chain of aerodromes, commercial and passenger air-services, both transcontinental and local, would develop with surprising rapidity and with no possibility of untoward setback such as exists under prevailing conditions.

Patrol of Forest Reserves

In the event—one might safely say certainly—of governmental indifference, there is no good reason why certain types of flying-machines should not at once be made use of in Canada—even without aerodromes. Reference is made, of course, to sea-planes, or flying-boats, for which craft nature's aerodrome lies prepared on the surface of any ocean, lake or river. Last summer, in less than three months, five per cent of the

Rocky Mountain forest reserve was destroyed by fire. In all probability, a second five-percentage will go up in smoke next summer—and so on, until, in a generation, nothing remains. Now, a few flying-boats moored on the Pacific coast and on various of the Arrowheads and other lakes in which the province of British Columbia abounds, could maintain a constant and perfect patrol over a great part of the entire forest area. Perched five or ten thousand feet over the tree-tops, the flying ranger would command a view of hundreds of square miles of brush-blanketed territory; the slightest trace of smoke or flame would instantly be visible to him; in a few moments' flight he could determine almost to a hair's breadth the location of the incipient blaze and could at once give the alarm to the nearest patrol-station, the position of which he would know from his map. On a hot summer's day, a score of fires may break out in the mountains; with an efficient, and comparatively small, flying patrol, every one of these should be spotted and reported before it got well under way.

The cost!—of course. There would be a good deal of talk of the cost of an airplane, or flying-boat, patrol. Is it not typical of new-world civilization that, against this so-called cost, we never think of setting the cost of one summer's fires—to wit: the value, actual and potential, of 5 or ten per cent, of our magnificent forest reserve? Thinking only of cost, we disregard value. But the cost, even at that, might be lessened by making use of the aviators, during the times of their daily flights, in photography. Thousands upon thousands of dollars have been spent, and will be spent, in paying for engineers' surveys of our forest areas, in order that data may be secured for governmental map-making. No map known can compare in accuracy, clearness and pictorial truth with the mosaic-photograph made up of aerial snaps. Such a mosaic of British Columbia, for instance, would show every square mile of forest exactly as it is; would show every clearing and every burned-over area, every stretch of water, every road and every settlement. This great mosaic flying fire-rangers might be making as part of their regular duties on every day of flying weather.

One might go on to show other uses of the flying-machine in Canada, but it would be of no avail to do so. What would be of avail, would be to have a heavier-than-air machine actually given an honest trial on one of the above-mentioned services, under government auspices. Unless the government sense the situation and give leadership as leadership should be given in such a new phase of human endeavor, the future of commercial aviation in Canada would seem to be somewhat remote. Meantime, a few private persons will carry on in the air and, in good time, shall have their reward in the general adoption of the flying-machine as a vehicle of commerce.

Canada's Transportation Problem

Continued from Page 11

decided to continue the organization in time of peace, under the name of the Railway Association of Canada. At certain times of the year, particularly harvest time, the Canadian railways are, so to speak, at war with nature, racing against time to get the harvest out, the livestock to market, and the coal in for winter consumption.

The year 1920 will be particularly interesting in railway history, as it will mark the return to private ownership of the railroad systems taken over by the United States government for administration during the period of war. The elimination of all competition under a government monopoly experienced during that administration was an object lesson which our neighbors are not likely to forget. The conviction of the failure of government administration was universal, and the action of that government in restoring the railways to private enterprise has been, perhaps, the most popular measure in the history of the present United States administration.

It is fortunate for Canada that the experiment of this government monopoly was carried out at the expense of someone else, for the financial position of this country could ill-support so disastrous a failure.

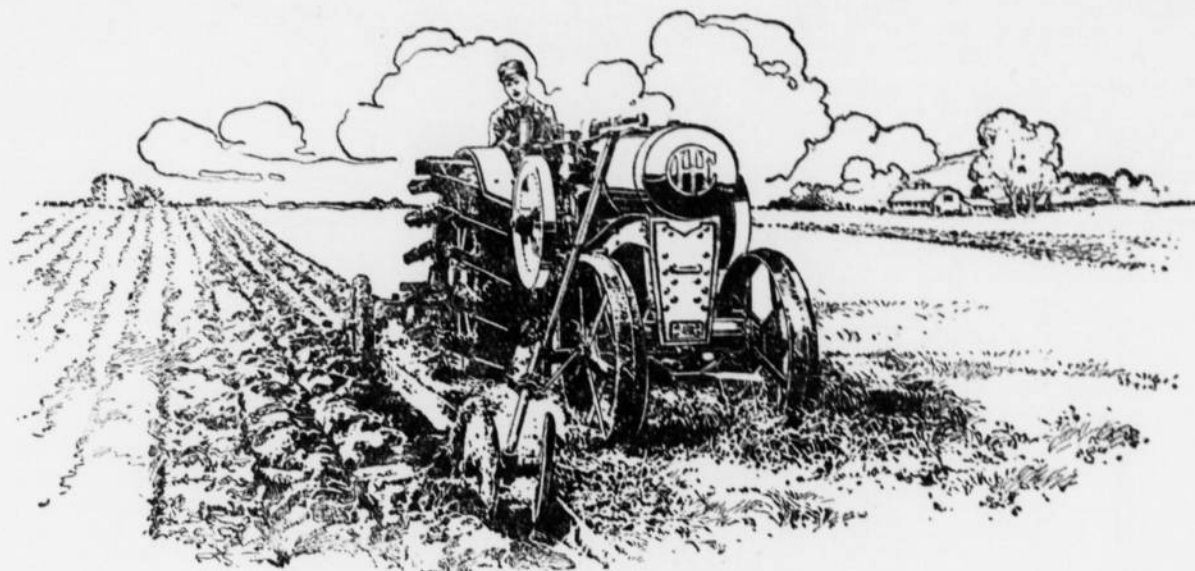
Expenditures on Settlement Projects

My own interest naturally centres round the Canadian Pacific Railway Company, and I may be pardoned if I dwell for a little on one phase of the Canadian Pacific's activities in Western Canada. In the controversies that from time to time have arisen round the company, it has frequently been accused of having received a large land grant, the implication always being that it has done nothing to deserve or earn it. In looking over the company's expenditures on land development and colonization, I feel strongly the injustice of this implication. I find, for instance, that up to December 31, 1918, the expenses in connection with land settlement and colonization had amounted to no less than \$22,183,308.14; the expenses in irrigation construction amounted to \$14,896,101.01; the expenditure on agricultural, demonstration and experimental work totalled \$800,539.38. The promotion of animal husbandry and advances of livestock to settlers had cost us \$468,602.95. In the development of improved farms to encourage settlement we had spent \$2,733,472.73. Our townsite development had cost us \$4,209,632.35, and the expense of our industrial and immigration bureau had amounted to \$351,330; making a total of \$45,642,986.56 of expenditure in the interest of settlement directly debited against the proceeds of land sales. The approximate number of bona fide farm settlers located in Western Canada through the efforts of the land department of the C.P.R. in that period, numbered 45,856.

The Dominion government expenditure on immigration for the period 1881-1916, totalled \$23,771,480, so that the magnitude of the C.P.R.'s expenditure may be realized.

Of the C.P.R. expenditure, the item which, until last summer, was most severely criticized was that on irrigation in the province of Alberta. We were accused of wasting vast sums on the artificial supply of water which the land did not require, merely with the object of getting an enhanced price for the land. Last summer the value of irrigation was put to the test, with the result that a unanimous demand went up that the government should establish further irrigation projects without delay, and the pioneer work done by the Canadian Pacific Railway in the same field was more than justified.

The great increase in wages since the beginning of the war, amounting to no less than \$77,000,000 per annum paid out by Canadian railways, is largely based upon the increased cost of living, and in that increase the cost of food-stuffs plays an important part. No one grudges the farmer the better prices he has recently been receiving for his wheat and other farm produce, but it is well for the farmer to realize that the pyramiding of the cost of food must automatically result in an increase in the cost of transportation—so



The Sensible Leader of the 1920 Tractor Field

NOWADAYS the chug-chug of the farm tractor is heard in every corner of the land. Tractors are at work in the fields of many thousands of farms and if you look them over you will find them a mixed lot.

Tractor farming is still in its youth. Novelty is still in the surge toward power farming.

The impractical theorists are still in the ring, limping but not out of the running. Adventurers who swarmed into what they termed the "game" are still "playing." The hazards facing the farmer in search of reliable power are many.

In all this turmoil, one tractor like a steady star has lighted the way. That tractor bears the trusted name—**Titan 10-20**. It has led because it is the product of practical builders of good farm machines; because it is backed by many years of experience and unquestioned reputation.

Today **Titan 10-20** is the standard-setter among all tractors. During the past year it has been the topic of conversation on the tongues of farmers and tractor makers the nation over.

Selling at the popular new low prices **Titan 10-20** faced a sensational demand. A few months ago this desire for Titan ownership had flooded the factory with thousands of orders which could not be filled at once, though a new Titan was being turned out every few minutes.

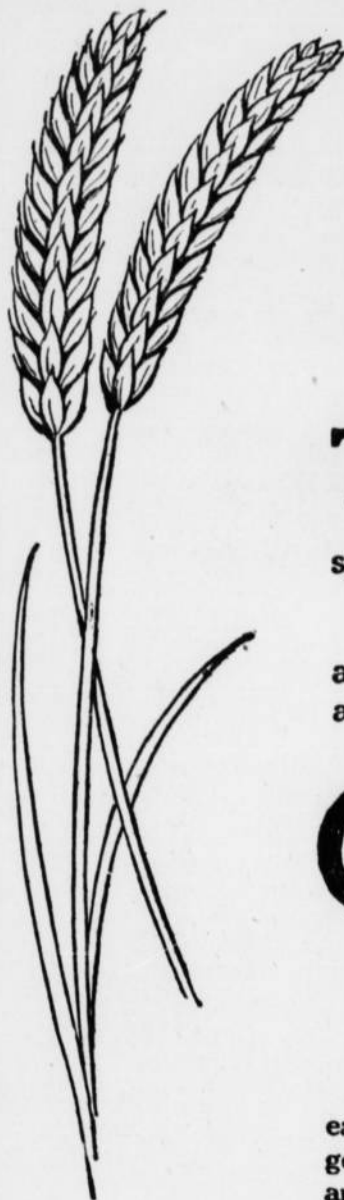
Every effort is being directed to greater production and to continued **Titan 10-20** pre-eminence during 1920. In view of manufacturing difficulties however, this is earnest advice to the intending purchaser:

Orders for Titan 10-20 — and also for International 15-30 — must be placed far in advance. No other course will assure delivery.

INTERNATIONAL HARVESTER COMPANY OF CANADA LTD.

WESTERN BRANCHES — BRANDON, WINNIPEG, MAN., CALGARY, EDMONTON, LETHBRIDGE, ALTA., N. BATTLEFORD, REGINA, SASKATOON, YORKTON, SASK.
EASTERN BRANCHES — HAMILTON, LONDON, OTTAWA, ONT., MONTREAL, QUEBEC, QUE., ST. JOHN, N. B.

**Why pay high prices for
tea when BLUE RIBBON,
the best tea in this or any
other country, can be bought
at 75c per pound**



Two Heads of Wheat are better than one

TO save the two, you must get rid of the one. In other words, if you want to harvest two stalks of wheat in September where two tender shoots spring up in May, you have got to kill the gophers NOW.

GOPHERCIDE—used while the gophers are hungry and before the new wheat sprouts—will save your fields, at very small expense.

Gophercide

Gets the Gophers Every Time

Gophers like wheat soaked in Gophercide. They eat it eagerly, and die almost instantly. It is deadly stuff; but it tastes good to the gophers; has none of the bitter taste of strychnine and fools the gophers completely.

A package of **GOPHERCIDE**, dissolved in half a gallon of warm water, will poison a gallon of wheat; this poisoned wheat will kill about 400 gophers.

GOPHERCIDE has proved its value to thousands of grain growers and homesteaders. Hundreds of Municipalities will use it this year to protect the grain growers in their districts.

Clear your fields with **GOPHERCIDE**—urge your neighbors to do so—ask your Municipal Officers to take up the matter officially. A few cents, spent for **GOPHERCIDE NOW**, means many extra dollars' worth of wheat at harvest time.

Chemical Analysis of Manufactured Poisons reported by Andrews and Cruickshank, analytical and consulting chemists to the Deputy Minister of Agriculture, Regina, shows: Gophercide contains ten times the quantity of Strychnine of all other preparations examined.

National Drug and Chemical Company of Canada, Limited

MONTREAL, WINNIPEG, REGINA, SASKATOON,
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VICTORIA and EASTERN BRANCHES.

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FREE COMPLETE HOCKEY OUTFIT

BOYS—Don't pay \$5.00 or \$6.00 for a hockey outfit, when you can get, **ABSOLUTELY FREE**, this magnificent outfit complete, consisting of a pair of splendid, strong, polished steel hockey skates (all sizes), a good lively puck, and a strong, well-made rock elm hockey stick, and in addition, as an extra present, a dandy pair of well-padded hockey gloves with fingers and wrists protected by cane splints covered with leather, or a pair of strong, heavy hockey boots, extra well stitched and reinforced. **WITH THIS SPLENDID OUTFIT YOU WILL BE THE BEST EQUIPPED PLAYER ON THE TEAM.**

These magnificent presents are given to you for introducing among your friends just 26 packages of the wonderful new "Dew-Kist Bouquet" Sachet only 15c. a package. This is the most wonderful and exquisite

perfume that has ever been invented. One 15c. package will perfume more articles than a dollar bottle of perfume. The lovely odor lasts for months. Everybody you show it to will want two or three packages at once, so you will sell them all in a few minutes of your spare time. Then send us our \$3.90 and you will receive at once the complete hockey outfit of fine quality skates, rubber puck and hockey stick, and the fine hockey gloves or hockey boots you can also receive without selling any more goods, by simply showing your fine premiums to your friends and getting only four of them to sell our goods and earn our fine premiums as you did.

Hurry up boys! We arrange to stand payment of all charges on your outfit under our reimbursement system, and if you can't sell all the packages we will take them back and give you presents for what you do sell.

Address: **THE REGAL MANUFACTURING CO., Dept. H 40 TORONTO, ONT. 13D**

much of that transportation being due to human labor which requires to be fed.

Renewal of Immigration Anticipated

In the coming year we anticipate a renewal immigration of settlers from Great Britain, particularly to the province of British Columbia, which seems to appeal very strongly to Old Country people on account of its scenery and climate. These new settlers will, undoubtedly, receive a hearty welcome, but perhaps it might be as well to accompany that welcome with a warning—namely, that care should be taken in the choice of land and that fancy prices for land should be avoided. A good deal of the dissatisfaction which accompanied some of the pre-war settlement of British Columbia was due to the abnormal prices paid for fruit lands, the return from which could never recoup the capital outlay. It is unwise to encourage settlement on an unsound economic basis.

Although the problems we have to face are considerable, I have, however, sufficient faith in the enterprise and character of the Canadian people to be an optimist and to feel certain that our future is bright, and that we are on the threshold of the greatest development in our history. We have the advantage of immense natural resources in field, forest and mine, and if we have the education and knowledge to take advantage of these resources, nothing can prevent Canada from becoming one of the great factors in the progress and prosperity of the world.

Industry on a Peace Basis

Continued from Page 63

themselves into an attractive position during the year. At the outset, the outlook was not altogether promising. Orders for military and naval requirements were cancelled, and there was widespread fear of a sharp decline in prices. Trade was more or less unsettled, and buyers were hesitant. The placing of orders for Roumania under the provision of government credits was the first step of a series that brought new activity to the cotton and woolen industries. Knit goods' trade was also taken for overseas account. Domestic markets strengthened steadily, and towards the close of the year it was found that demand exceeded supply in all manufactures where fine goods were produced. There was a large part of the equipment of woolen mills adapted for the making of coarse goods such as heavy woolen socks, khaki frieze, etc., that could not be readily utilized for civilian trade. Greece came into the market for over 1,000,000 yards of khaki cloth for its army, to cost approximately \$1,000,000, and this, together with the Roumanian business, and other orders of a purely commercial character have contributed to the general prosperity of the whole industry. Imports of woolen and worsted textiles from the United Kingdom have been insufficient for Canadian needs, and there has been a heavy call for goods of Canadian manufacture. While these are not claimed to be equal to the best products of English and Scottish manufacturers, it is a fact that the Canadian goods are better value, dollar for dollar, due to the greatly-increased manufacturing costs in the United Kingdom. Difficulties have been encountered in getting new machinery to add to capacity of existing plants. A large percentage of the mills have been improving their status for the making of goods for civilian wear, and aside from satisfying a larger proportion of the healthy domestic demands they are neglecting no opportunities to increase overseas business.

A survey of the entire field of Canadian industry affords little ground for pessimism. Representative manufacturers feel that Canada is about to take a more prominent part in the industrial world, and that its position as an exporter will be greatly enhanced. Prosperous domestic trade conditions mean much, and in this regard there is not a great deal of ground for complaint. Broadly speaking, leaders of industry are keener to take advantage of their opportunities, and the future is viewed as propitious.

Beef Hides

ADVANCED

5 to 8c. per pound since January 5—ship all to us.

Raw Furs

still going up. Everything is in good demand. Prices may not keep up. Ship at once.

North West Hide & Fur Co. Ltd.

278 RUPERT AVENUE, WINNIPEG.

The Soldier in Civil Life

Continued from Page 18

complain are inadequate, but have also lately been improved, are paid to themselves and their dependants. The criticism has been advanced that the cost of the S.C.R. is extravagantly high and that the country does not get value for the enormous sums spent on it, but a definite judgment is difficult.

Pensions for the Disabled

Any Canadian soldier or sailor disabled in the service of his country is entitled to a pension provided medical treatment fails to restore to him his normal physical powers. Today all democratic peoples regard war as a social risk. Those who give service in it do not perform it for themselves alone but for the community of which they are a part. A war pension is money owed by the community to a soldier, sailor or his dependants on account of his disablement or death. The fundamental object of the pension is to ensure for the pensioner and his dependants maintenance which he is unable to provide. It is entirely unaffected as regards its amount by the pre-war occupation or earning power of the recipient. The administration of pensions in Canada is in charge of a board of three pension commissioners, with headquarters in Ottawa, each being appointed for a term of ten years. These commissioners have exclusive jurisdiction and authority to deal with the payment and administration of pensions to all disabled Canadian soldiers and sailors or their dependants. A large and well-organized business machine has been created with local offices in every province as well as in London, England. The original staff of 34 has now grown to 1,300 and the 2,700 pensions which were paid in the first year of its existence have increased to practically 100,000. The total amount paid out in pensions from April 1, 1918 to April 1, 1919, was \$16,752,215, and the annual bill will, eventually, reach \$30,000,000.

But not only has the number of pensioners since that date increased, but the scale of pensions, having been found inadequate to meet the enormously advanced cost of living, was raised all round by new pension regulations which came into force on September 1, 1919. Our pension scale will not allow its beneficiaries to live in any wanton luxury, but it is commendably generous in comparison with what other countries pay their disabled veterans and their dependants. Appended herewith are three tables giving comparative

figures of pensions paid by various countries in specific cases.

Soldiers' Settlement

The tradition that soldiers should be given the opportunity of becoming farmers is of old standing in Canada. It was inaugurated in the 17th century when the Intendant Talon settled a military colony of officers and men of the Carignan-Salieres regiment around the junction of the Richelieu and St. Lawrence, and has been repeated at intervals in our history. But the prospect of free grants on an extensive scale had come to an end, so another policy had to be devised. The Soldiers' Settlement Act of 1919, which confirmed and amplified an order-in-council passed earlier in the year, empowered the Soldier Settlement Board which it set up, to acquire in any province privately-owned lands and sell to any returned soldier who had certain necessary qualifications for success as a farmer, a not greater acreage than 320 acres, with the proviso that the land should be sold at the price acquired and that the balance owed by the soldier settler should not exceed \$4,500, a minimum percentage of ten per cent. of the price always to be advanced by him. The balance is repayable to the government, under the amortization plan, in 25 annual instalments, with interest at five per cent. In addition the board can lend the veteran settler \$2,000 for the purchase of stock and implements, which is repayable in four instalments after the second year, no interest is required on this loan for the first two years. One thousand dollars can also be advanced on genuine improvements, to be repayable on the same terms as the loan for purchase. A soldier who has previously had a farm of his own or homesteaded under a previous settlement act of 1917 is entitled to a loan up to \$4,500 on the same terms. To administer the act a complete organization, reinforced by a number of special boards and acting in co-operation with the federal and provincial agricultural authorities, has been established in every province. There are complaints and grievances on the part of individuals, but in general the scheme seems to be working with smoothness and success. The following are the latest available statistics, calculated up to December 13, 1919, of the

COMPARATIVE SCALE OF PENSIONS—ANNUAL RATE AWARDED TO WIDOWS OF PRIVATES

Country	Widow only	Widow and 1 child	Widow and 2 children	Widow and 3 children	Add for each Subsequent Child
	\$ cts.	\$ cts.	\$ cts.	\$ cts.	\$ cts.
*Canada	576.00	756.00	876.00	972.00	96.00
United Kingdom ..	253.06	464.01	558.91	634.74	75.92
New Zealand	379.60	632.66	759.19	885.72	126.53
Australia	253.06	379.60	474.50	537.75	63.26
South Africa	253.06	347.96	432.31	506.12	63.26
**United States ..	300.00	420.00	510.00	570.00	60.00
France	160.00	220.00	280.00	340.00	60.00
Italy	121.66	121.66	121.66	131.39	9.73
Germany	96.35	136.74	177.13	217.52	40.39

*The rates for Canada include a bonus for one year to take effect September 1st, 1919.
**No account has been taken of benefits accrued from voluntary insurance.

COMPARATIVE SCALE
DISABILITY PENSION RATES PAID BY GREAT BRITAIN AND THE OVERSEAS DOMINIONS PER ANNUM.

Per cent of Disability	Country	Pensioner	Pensioner and Wife	Pensioner wife and 1 child.	Pensioner wife and 2 children.	Pensioner wife and 3 children.	Add for each subs. child.	Allowance for helplessness.	Allowance for other Dependents.
100%	Canada ..	\$720.00	\$900.00	\$1,044.00	\$1,164.00	\$1,260.00	\$96.00	\$450.00	Unmarried men may be allowed up to \$576.00 to support a dependant parent.
	U. Kingdom	506.13	632.66	727.56	803.48	879.42	75.92	253.06	
	N. Zealand	506.13	759.20	885.73	1,012.26	1,138.80	126.53	253.06	The amount of pre-enlistment dependency.
	Australia ..	379.60	569.40	695.93	790.74	854.01	63.26	126.53	A pension or pensions at such a rate as may be assessed in any one case not exceeding \$253.06.
	S. Africa ..	379.60	506.13	601.12	685.36	759.20	63.26	442.86	
80%	Canada ..	576.00	720.00	840.00	936.00	1,020.00	84.00		
	U. King'm	404.89	506.13	582.05	642.78	703.52	60.74		
	N. Zealand	404.91	607.35	708.58	809.80	911.02	101.22		
	Australia ..	**							
	S. Africa ..	**							
50%	Canada ..	360.00	450.00	534.00	594.00	654.00	60.00		
	U. King'm	253.06	316.33	363.78	401.74	439.70	37.96		
	N. Zealand	253.06	379.59	442.86	506.13	569.39	63.26		
	Australia ..	**							
	S. Africa ..	**							

After Inventory Piano Bargains

Clearing away at generously reduced figures a number of lines of well-known pianos. Last year we purchased heavily in advance of steadily increasing prices. Stocktaking shows that we have too many pianos of certain styles and makes that we can therefore offer at genuine reductions. This means an unequalled opportunity for you to purchase a brand new piano at prices you cannot equal elsewhere.

Brand New Pianos

At Rock-Bottom Prices

More space must be made for other pianos ordered early last year and daily arriving in our warehouse. Pianos now in stock must be moved to make way for them.

Get our Illustrated Catalogue regarding present prices and terms.

Canada	\$395
Lesage	410
Winnipeg Piano Co.	445
Sherlock-Manning	475
Bell	475
Haines	525
Cecilian	525
Nordheimer	595
Gerhard-Heintzman	625

Other Styles at Different Prices

CANADA PLAYER (Boudoir Style)



\$675

12 Music Rolls and Combination Player and Piano Bench free. Customers may exchange rolls at any time on paying 10 cents each.

IMPERIAL



\$375

Bargains In Slightly-Used Pianos

Each of these pianos has been thoroughly overhauled, repolished, and is guaranteed to be in good condition. They are big reductions on some well-known makes.

	Regular Price	Sale Price
Mendelssohn	\$450	\$285
Lesage	450	335
Sherlock-Manning	500	365
Mason & Risch	525	315
Wellington	425	275
Hoffman	400	225

Player Pianos

New Scale Williams \$950 \$625
Sherlock-Manning.... 875 595

Terms to Suit

Part cash payment accepted now and the balance in fall payments, or quarterly or half-yearly terms.

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Not only that, but we guarantee safe delivery of your piano to your nearest station.

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will be accorded the usual welcome to call and personally inspect our wonderful showing of pianos and phonographs.

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GREATEST SELECTION UNDER ONE ROOF

PIANOS—Steinway, Gerhard Heintzman, Nordheimer, Haines, Cecilian, Bell, Sherlock-Manning, Lesage, Canada, Brambach, Autopiano and Imperial.

PHONOGRAPHS: Edison, Columbia, Gerhard Heintzman, Pathephone, Phonola, Curtiss Aeronola, McLagan, Starr, Euphonolian.



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It is an easy matter to pay too much for a tractor. The purchase price may be too high. This, coupled with heavy operation cost, makes the cost per hour and per acre excessive.

Investigate before you buy. The Beaver price is right, the cost of operation low, and the machine mechanically correct.

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10 FRONT ST. EAST
TORONTO, CANADA

A Telephone on the Farm

operations of the Soldier Settlement Board:—

Total loans approved \$53,727,362 for the following purposes:—

Land Purchase	
Amount for purchase	\$29,060,829
Amount for improvements	3,787,373
Amount for S. and E.	10,908,578
	\$44,656,780
Charges on Dominion Lands	
Amount for improvements	\$ 1,437,661
Amount for stock and equipment	3,988,842
	5,426,503
Mortgages on Privately-Owned Land	
Amount for removal of encumbrances	\$ 1,794,357
Amount for improvements	622,611
Amount for S. and E.	1,227,111
	3,644,079
	\$53,727,362

Number of loans approved	17,992
Average loan	\$2,986
Soldier grant entries to December 27	5,819
Number of applications for Qualification Certificates, December 6	43,783
Number approved	33,136

Land Settlement in Britain a Failure

Great Britain adopted a policy of establishing a system of unemployment insurance for her discharged soldiers. Each man on leaving the service received a certificate which entitled him to insurance for unemployment for six months during the first year of his return to civilian life. The privilege has been extended lately and there are over 300,000 ex-soldiers at present in receipt of out-of-work benefits in Great Britain. Medical care for the disabled and provision for industrial training or retraining have been organized on practically the same lines as here.

During the war there was much grandiose talk about restoring the land to the soldiers who saved it and planting vast colonies of ex-service men in every quarter of the country to revive rural life. But all these projects ran up against the ancient system of land monopoly, which is the mother country's heaviest millstone, and the patriotism of most landowners evaporated when it came to selling land at reasonable rates for soldier settlements. The method favored in England is the establishment of colonies of small holdings ranging from ten to 50 acres, and while a certain number have been successfully set up, the net result falls far short of the original plans and expectations. There is a far greater demand among the ex-soldiers for land than the supply available, but it is improbable that anything really drastic will be done to end the monopolistic feudal system till the labor party is either in power or is the largest single party in the House of Commons.

Where Great Britain has bettered us is in her schemes for the re-education of young soldiers who interrupted their educational courses to go to the war. We have (to our disgrace) done practically nothing in this direction, and Principals Falconer, of Toronto, and Bruce Taylor (of Queen's), have both protested against the government's failure to devise some scheme in co-operation with the universities. The Imperial government makes advances for the expenses of education at the universities and technical colleges up to at least \$1,000 per annum to all veterans who can show aptitude for the benefits of higher education and desire to cultivate them. By this means hundreds of young men who would have found considerable difficulty in pre-war times in securing a university education are now obtaining access to it. In addition to these provisions the Imperial government is willing to pay the passage of any veteran who is adjudged likely to be a successful settler in a Dominion, to that country. The British veterans are not satisfied with the government's schemes and insist that they fall far short of what is needed. They are demanding gratuities on a more generous scale.

In the Other Overseas Dominions

South Africa never had more than a division of soldiers in Europe. The men who took part in the South and East African campaigns were mostly farmers with their own land, and as a result repatriation does not present a difficult problem, especially as there is land available for free grants to soldiers in what was German South-west Africa. Australia and New Zealand, as often happens, have followed almost identical plans, and it will suffice to give some account of the Australian schemes. To deal with the problem a repatriation department came into existence by special legislation, and took over all the work of existing organizations which were looking after returned soldiers, on April 8, 1918.

There have been established a repatriation commission at Melbourne, repatri-

ation boards at each state capital, and district repatriation committees usually coterminous with local government areas. Some particulars of the Australian pension scheme have been roughly given already. There is similar provision for the disabled as with us and a sufficiency of hostels, sanatoria, workshops and training establishments are available.

In regard to the veterans who are fit, the principle has been accepted that as a soldier abandoned his calling to serve the state, it is the duty of the state to maintain him until full opportunity for such re-establishment is secured. To this end grants are made for equipment or for tools up to £10 and amounts up to £150 or in certain circumstances up to £250 are lent for the purchase of business, plant, etc., interest at the rate of five per cent. being charged on the amount in excess of £50. While awaiting employment or during vocational training, sustenance allowances at a rate which will obviate malingering, are provided. Grants up to £25 for furniture are allowed, too, by way of gift to war widows in needy circumstances, and advances up to £150 may be made for the discharge of mortgages. Special privileges are also secured for the education of the children of the fallen. The repatriation commission has embarked on extensive building operations for the direct benefit of soldiers and will make advances up to £700 to applicants who desire to build for themselves or to acquire houses already built. The work of land settlement is managed jointly by the commonwealth and the states' governments as the former controls no land suitable for colonization. There is a Soldiers' Settlement Board, comprising a minister from the commonwealth and from each state. The central government supplies the funds and a maximum of £625, equivalent to \$3,000, has been fixed as the limit to be advanced to each settler. Up to June 30, 1919, 4,000 men had been provided with holdings and the number was expected to be 17,000 by January 1, 1920. Many of the holdings are in irrigated areas and are planned for dairying, keeping pigs and poultry, viticulture, market gardening, etc., rather than grain growing. Important experiments are being made with group settlements and co-operative methods of production, purchase and sale of goods and commodities. There is obviously more originality in the Australian schemes than ours and more enterprise has been shown in striking out on new lines. The extra gratuity problem also came up during the recent election, and Mr. Hughes had to commit himself to a very large extra expenditure to pacify the irate veterans, who, on one occasion, mobbed him.

France, Italy, the United States, Germany and all the other belligerents have on hand schemes for the re-establishment of their soldiers, but there is not space to give any details of their arrangements. The new state of Czechoslovakia, whose government contains several strong Socialists, has boldly confiscated the estates of the feudal nobility which used to rule the roost under the Hapsburg empire, and has divided them up into free land grants for its veterans. In that country alone are the soldiers being given a generous share of the land they fought for. In all other countries governments have too great a reverence for the vested rights of property to take the necessary steps to give the soldiers a proper chance on the land. But it is fair to say that our Canadian scheme is better than most of the others.

Canadian National Railways

Continued from Page 11

freight rates, be paid for by the general public. As owners of this great national railway system the people will, I should think, want those who use the railway to pay a charge which will properly compensate the railway for the service rendered. Give us reasonable time to properly co-ordinate the railways to be comprised in the national system and we will make it a great asset to this country and if properly supported as the peoples' railway deserves to be supported, it will be identified with national progress in every province.

Rapid Future Development Assured

Those of us who have seen western development going on when encouraged by proper conditions can have no doubt as to the rapid progress that western Canada will make as soon as immigration conditions regain the normal. To no community is transportation more important than to the western farmer. The cost of the movement of grain to the railway by wagon, if any length of haul is involved, quickly reaches a point where it is greater than the cost of the freight charges. Therefore the efforts than the western farmer made under war conditions to increase production, involving in some cases a haul of 50 miles to the railway, should be very fully appreciated and I am glad in this article to make reference to the great service rendered by the farmers in this way. Those of us who know the production that come from districts so handicapped for railway facilities can look forward to the same wonderful development that other districts have shown when this great handicap of lack of transportation facilities has been removed.

With the acquisition of the Grand Trunk Railway System and its subsidiaries, the government has assured for the national railways a well balanced system. The western lines are well known to you.

The intercolonial unit of this great railway consolidation connects the Atlantic seaboard with Quebec and Montreal, and was constructed as one of the conditions preceeding the union of the maritime provinces with upper and lower Canada in 1867. It was completed in 1876, and has always been operated as a government road.

The national transcontinental spans the vast territory between Winnipeg and Moncton. It has always been the property of the people of Canada, having been built by the Laurier government as the complement of the Grand Trunk Pacific.

While the consolidation of the Intercolonial Railway, the Canadian Northern, and the National Transcontinental lines gave the government a system of 14,000 miles, it was a system that was lacking in some vital respects. In order to round out the system and provide it with feeders in the east, the incorporation of the old Grand Trunk system, with its network of lines throughout the rich and populous provinces of Ontario and Quebec became imperative, and indeed was foreshadowed by the government when the other lines were taken over.

22,375 Miles of Railway in the System

The system is now one of great

strength as the following distribution of mileage shows:—

	miles
Prince Edward Island	279
Nova Scotia	1,038
New Brunswick	1,107
Quebec	2,496
Ontario	6,352
Manitoba	2,320
Saskatchewan	3,576
Alberta	2,099
British Columbia	1,227
United States	1,881

Total 22,375

In conjunction with the operation of this mileage a mercantile fleet under the control and direction of the Canadian National Railways will be an important factor in the development of Canadian trade.

The Canadian National Railways can be made a big success because we have the location and the equipment, and an organization composed of loyal, efficient, and energetic employees, many of whom have grown up with the railway since they were lads, and no one knows better than I do that they can give the service. I do not subscribe to the cynical theory that because a man is in the employ of the government railway system that he will be less loyal or less zealous in the promotion of its interests than if they were employed by a private corporation. In addition to the ideal of duty which the conscientious employee has constantly before him, there will be the same material incentive, because there will be the same opportunities for promotion, and the promotions will be strictly on merit.

It is recognized that this is a tremendous venture, and it is realized that the eyes of the world are upon the experiment. Just in proportion as we succeed or fail, just in proportion will the cause of public ownership advance or recede. It is a flyer in public ownership, a colossal flyer, if such a paradoxical term is permissible, but I am supremely confident that when the various units comprising the great system are co-ordinated and the dead wood cut out, it will justify the highest hopes of the country.

Political Interference Absent

In the 15 months that the Canadian National Railways have been in operation under the re-organized control arranged by the government, I am glad to say that there has been an entire absence of political interference on the part of ministers or members of parliament. We have, of course, kept the government fully advised as to important matters affecting the railways. The ministers of the government have given most considerable attention to the needs of the railways as from time to time put before them through the board of directors. This experience is encouraging and assured a continuance of such conditions and with the support which the people will I hope give to the system they own, I can only feel optimistic as to the future.

The virility of the Canadian people, the matchless and in some respects almost untapped resources of the great country, will, I feel sure, bring great development to Canada, and I have no doubt at all that the Canadian National Railways will merit and receive a generous share of the enormous traffic that the development of these resources will bring about.

CANADIAN FISH

Continued from Page 26

It may be cooked and placed in an enameled dish with weak vinegar, salt and pepper. Prepared in this manner, it may be eaten hot or cold.

All canned fish can be eaten cold as they are already cooked in the can. Chum salmon and chicken haddies make excellent salads, and sardines, herring, and pilchards may be served cold on lettuce leaves. Sandwiches can be made of sardines.

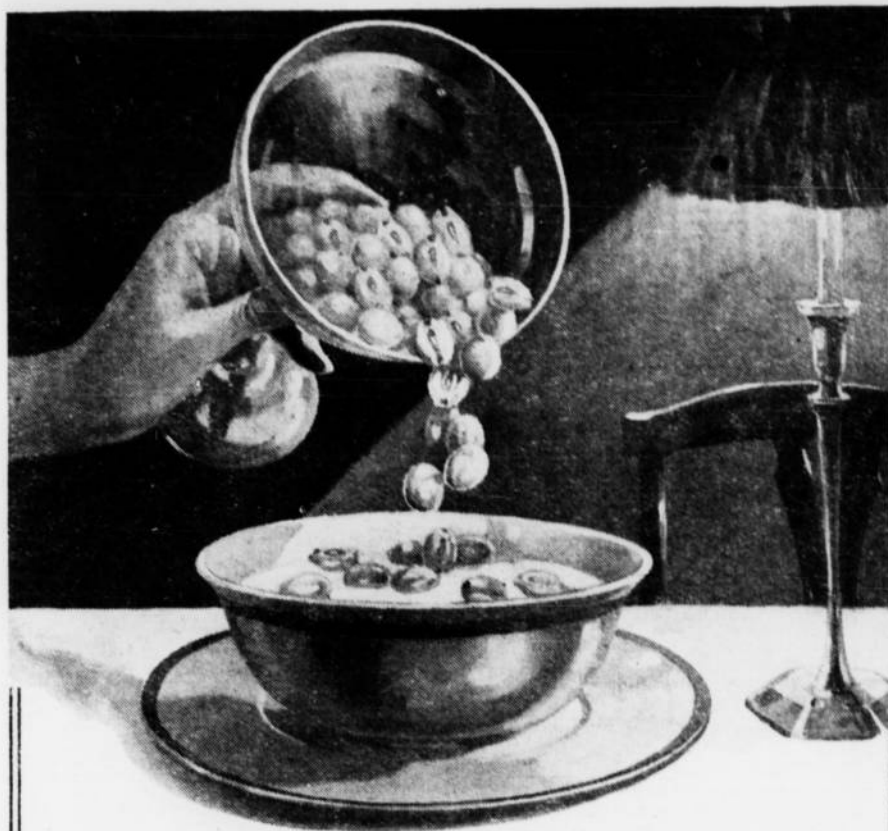
The following fish can be prepared by frying or broiling: Whitefish, goldeyes, pickerel, jackfish, trout, herring, soles, brills, plaice, perch and any small fish.

Boiling, baking and steaming: Cod-fish, skate, trout, whitefish, pickerel, herring and jackfish.

Smoked fish, such as herrings, sablefish, finnan haddie are best broiled or fried, though sablefish and haddie may

be boiled and served with a cream sauce.

Since 1914, the consumption of fish in Canada has been steadily increasing, but a considerable increase is still necessary if we are to reach the per capita consumption of Great Britain. The scattered nature of our population, the lack of transportation facilities, and an ignorance of the variety and value of the food fish available have militated against a more general use of our enormous resources in that line. It is possible, however, for persons, no matter how remotely situated, to secure supplies of frozen and preserved fish and these should be made greater use of for the four-fold purpose of health, economy, the encouragement of our fishing industries, and the release of higher-priced meats for export.



Bubble Grains At Bedtime

Foods Easy to Digest

Puffed Wheat and Puffed Rice are not for breakfasts only. Serve them for luncheons and suppers. Float in every bowl of milk.

These are bubble grains, airy, crisp and toasted, puffed to eight times normal size. No other dainty in existence makes the milk dish so enticing.

Every Food Cell Blasted

Consider Puffed Wheat. Here is whole wheat made delightful, both in texture and in taste.

Under Prof. Anderson's process, every food cell is exploded. Digestion is made easy and complete.

It supplies whole-wheat nutrition. It does not tax the stomach. It makes milk inviting, and every child should drink a pint a day.

Serve as a breakfast dainty. Mix with your fruits. But don't forget that Puffed Grains also form the ideal bed-time dish.

Puffed Grains are the greatest of grain foods and the most enticing. Serve both kinds. Let children revel in them.



Try Melted Butter

on the grains some morning. Add cream then, if you wish. This adds a new delight.

Puffed Wheat

Puffed Rice

Bubble Grains

Puffed to 8 Times Normal Size



The Quaker Oats Company

Sole Makers

Peterborough, Canada

3307

Saskatoon, Canada

The Countrywoman

The Alberta Convention

THE United Farm Women of Alberta held, this year, the most successful convention in the history of the organization. It was to be expected that the convention would be a success, coming as it did at the end of its most successful year. Both the membership and the number of locals doubled during the year, and this in spite of the "flu" of last winter and the drought conditions the latter half of 1919.

Perhaps the finest thing in the convention was the large percentage of the delegates who took an active part in the work of the convention. This was something that was favorably commented upon by the visitors and fraternal delegates alike. This fact pointed more clearly than could anything else to the great educative and developing force the association is, and its work has really only begun. People become informed upon a subject when that subject has been brought to their attention as a matter of interest. The association through its platform, the New National Policy, and through the propaganda from the Central office, through the association's official organ, and the various other sources available, have created an interest and a desire for information on the foremost national questions in Canada today, and the farm women of this country are rapidly mobilizing a definite opinion thereon. But there is yet need for a great deal more work. It is quite likely now, that lack of information on the part of the members of the U.F.W.A. is due rather to a lack of time to read and study than to the absence of a desire for information, for there wasn't a woman at the convention that did not register keen interest, in and sought further enlightenment on the questions before the convention.

The convention demonstrated to those present the imperative need of reading the news in the press. Two matters came before the convention on which there was a notable lack of information on the part of the delegates; one was the work of the Department of Education during the last year and the other that of naturalization. The questions asked Hon. George P. Smith, minister of education, indicated that many did not know what was being done in the province along educational lines, in spite of the wide publicity given that work. Personal naturalization is not by any means a new question. It must be nearly 20 years since the National Council of Women of Canada took this matter up, and various other women's organizations, not only in this country, but in all countries interested in the furtherance of women's citizenship have given this reform wide notice and publicity. But both subjects were given a free and prolonged airing at the convention, and it is safe to say that the locals represented at the convention will know all about the work of the Department of Education before very long; will study the whole matter of naturalization; and will watch with very keen interest the new elections bill which is promised for this coming session of parliament, and to which is so closely related the qualifications and machinery for naturalization.

Rome was not built in a day. But the farm women of the prairie provinces are breaking all records in organization, and in individual and class development.

Loans for Education

The board of directors of the United

Farm Women of Manitoba is considering the question of asking the government for some system of loans to boys and girls wishing to take up higher education. The board feels that in this country, only sparsely dotted with high schools, or schools with collegiate departments, the facilities offered to many boys and girls for higher education are indeed meagre. Many of them have to go a distance from home which necessitates boarding. And boarding in these days of the high cost of living is not a trifle. To go away from home for one or more years to take up high, or nor-

able, not quite so serious as that in Alberta. It might be as well to make a trial in Manitoba along the line of normal school training, where there is a direct economic place to fill on the completion of the course. This scheme of loans for education is probably like other reforms, in that this is a mere beginning. An educated man or woman is of far greater value to the state, generally speaking, than an uneducated person, and perhaps it is not out of the realm of right things that the state should do more than merely provide schools of higher education for those who may go and should enlarge the circle of those who may go by placing such facilities as loans within the reach of students.

British Citizenship

Section 2 of the Naturalization Act of 1919 reads: "The wife of a British subject shall be deemed to be a British subject and the wife of an alien shall be deemed to be an alien. But there are three exceptions to this general statement: (a) Provided that the wife of an alien may be naturalized in like manner and with the same effect as if she were a femme sole, but her naturalization shall not affect the status of her children of alien male parentage whether born before or after the date of her naturalization. (b) Provided that where a man ceases during the continuance of his marriage to be a British subject it shall be lawful for his wife to make a declaration that she desires to retain British nationality, and thereupon she shall be deemed to remain a British subject. (c) Provided that where an alien is a subject of a state at war with His Majesty it shall be lawful for his wife, if she was at birth a British subject, to make a declaration that she desires to resume British nationality, and thereupon the secretary of state of Canada, if he is satisfied that it is desirable that she be permitted to do so, may grant her a certificate of naturalization."

A contributor to The Western Independent says: "All the stock arguments in favor of personal naturalization seem to be met by this document," and she proceeds to quote the above passage from the act.

But have they? Even a cursory glance at the passages will see that the act is far removed from the personal naturalization for women that the Council of Agriculture has endorsed and is submitting for approval to the various provincial conventions. Except in three cases the wife of an alien shall be deemed to be an alien and the wife of a British subject shall be deemed to be a British subject. The first exception is that the wife of an alien, that is, a man who is not a British subject, whether he is a resident of Canada or not, may take out naturalization papers. To do so she must have been resident in Canada for a period of not less than five years, must be of good character, must have an adequate knowledge of either French or English, and must intend to reside for some time in His Majesty's dominions. The second provision is that where a man has ceased to be a British subject his wife may declare that she wishes to remain a British subject, and the secretary of state may grant her wish. The third provision is that if an alien be a subject of an enemy state, his wife, if she were at birth a British subject, may make a declaration that she desires to resume British nationality, and if the secretary of state is satisfied that it is

desirable, he may grant her a certificate of naturalization.

Some persons are under the impression that under the new act a British subject, if she marries an alien, may remain a British subject, and that an alien, when she marries a British subject, may remain an alien; that is, that women on marriage to a man not of their own nationality may choose their nationality. Such is not the case, and what may be considered the only possible exception is the third provision in Section 2, which has been quoted.

It will be seen that there is no provision for the personal naturalization of the wives of naturalized British subjects, and this is the real grievance of the act since the qualifications for naturalization are in this country very different from the qualifications to vote. The large percentage of our foreign women are the wives of naturalized British subjects, and all these women, if the principles of the recent by-elections act are incorporated in the new elections act, and we believe they will be, must go to the court and satisfy the judge that they are qualified for personal naturalization if the machinery for personal naturalization were provided, before they may have their names added to the voters' lists. It does not matter how long these women's husbands have been naturalized, or how long these women have been in the country.

The contention of the Council of Agriculture, as we understand it, is that there should be personal naturalization only, and then there is no possibility of cutting large sections of the electorate off the voters' lists when that section so cut off has no permanent redress. And that would be the case with the wives of naturalized British subjects if they were not at birth British subjects, under the provisions of the by-elections act.

Women have for years been asking for equal rights and privileges, as well as responsibilities regarding matters of citizenship. They have equal voting rights with men, but they have not yet, under our naturalization act, equal qualifications. Things will never be permanently right until the qualifications for naturalization, and for voting for women, are synonymous, and that can certainly not be attained until we have personal naturalization and personal naturalization only.

Class for Nurse-aids

Provision for the creation of a class of certificated women to be known as nursing housekeepers is made in a bill which was introduced in the Saskatchewan legislature recently by the Hon. George Langley, in the form of an amendment to the act respecting the Saskatchewan Registered Nurses' Association.

The bill provides for the training of these women over a period of one year and for their subsequent registration. They will then be able to go out in the joint capacity of nurse and housekeeper to attend confinement and minor surgical cases at a less salary than the fully qualified nurse commands.

Candidates for registration as nursing housekeepers, under the draft bill, are to be trained in hospitals open to government inspection and receiving government grants where nursing classes are not conducted. The course is to be at least one year and may include a term of training at the Fort Qu'Appelle Sanatorium. Instruction is to be given in the following subjects: Care of obstetrical cases, care of infants and young children, dietetics, general house-keeping, elementary nursing and care and prevention of tuberculosis.

The University of Saskatchewan may appoint a qualified nurse as supervisor of the women in training and the university will conduct the examination of the candidates for registration and furnish certificates to those who are successful under examination.



Little Cold Hands

Don't be too cross with old Jack Frost,
I know he's pretty mean today,
But don't forget he brought the snow
You wanted for your Christmas sleigh.
He paints each morning, fresh and new,
Upon the pane, a fairy view.
Don't sigh for other warmer lands,
But just brace up,
Little Cold Hands.

Say! would you live in Mexico,
Where children swelter in the sun,
And never slide with sleds, nor skate,
Nor join in glowing, winter fun?
Of course you wouldn't little man,
Then be a real Canadian!
Our Canada's the best of lands;
Brace up and smile,
Little Cold Hands.

—Margaret Minaker.

mal school work is utterly impossible to hundreds of boys and girls in Manitoba who reside in the poor-crop areas.

Alberta has a loan scheme for pupils wishing to attend normal school. For a term of eight months the government will loan a maximum of \$400, to be paid in monthly instalments of \$50. This is to be paid back at the end of the second year and the interest is 7 per cent. It has had the effect in Alberta, inside of one month after the announcement was made, of almost doubling the attendance at the normal schools. Educationalists who pushed the loan scheme in Alberta are under the impression that better students come to the schools under the loan scheme. Education means something to them when they are willing to incur a debt of at least \$400. They are more industrious, show greater concentration, and there is likely to be a greater permanency. So far, it is accomplishing all that could be desired in Alberta.

Manitoba too has a teacher shortage, although, according to information avail-

The Year in Steel

Continued from Page 25

possible by a consolidation of such allied interests, which are all founded upon coal and the heat that comes from coal when burned, to utilise this heat more completely and scientifically when all the surplus gasses, and the by-products of combustion are concentrated in a compact area, enabling process to follow process without loss of time or heat, and facilitating what is today known as straight line production. If such consolidations take place in the future, they should not be looked at askance, or regarded as undesirable, but should be recognized as the only way in which our basic industries of coal-mining, steel manufacture and ship-building can be developed to a point where they can stand on their own legs and enter the competitive markets of the world.

The weakness of the steel industry in Canada lies in its too great dependence on the United States for supplies of iron ore and coal. Only five per cent of the iron ore reduced in Canadian furnaces is mined in Canada, although a large tonnage, at least 900,000 tons annually comes from the Canadian-owned mines at Wabana, Newfoundland. Canadian iron ores are plentiful, and well distributed, but they happen to be temporarily discounted in value by the more accessible, cheaper and more easily reducible iron ores on the United States' side of the Great Lakes. Some day, Canada's ores will prove a source of great wealth. In the matter of coal, Canada can, to a much greater extent than she has hitherto done, please herself whether she mines coal at home or goes to the United States and pays out good money for coal there. Canada has lots and lots of good coal, and is under no compelling necessity to spend some \$50,000,000 annually in the purchase of United States coal.

Prospects in British Columbia

An interesting subject at this time is the desire of British Columbia to have a steel industry in that province. The permanence of the ship-building industry there almost requires a steel industry on the Pacific coast, and the probability is that before long a beginning will be made in the manufacture of steel, and possibly in the reduction of iron ores to pig-iron, in British Columbia. Wherever coal is found of suitable quality, and in sufficient quantity, an iron and steel industry is bound to follow the development of the coal-fields, even should it necessitate the transportation of iron ore and fluxes for some distance, because the metal industries, from the mining of the metalliferous ores to the final fabrication of the finished metal, are entirely dependent on coal for motive power and heat—with some notable exceptions where large quantities of electricity generated by water-powers are available. Coal is the most important and basic raw material of the modern world. It is a first necessity of national defence and national independence, and no country can achieve industrial importance without coal. Therefore, that country which is most generously supplied with coal is most likely to lead in industry. In Canada, that most favored district is Alberta, which has within its borders more coal than all the remainder of Canada, and more coal than any one state in the American union.



First Prize

In Doo Dad Coloring Competition for January won by

GEORGE COOMBER, Napinka, Man.

2nd PRIZE—RUBY E. TYLER, Spalding, Sask. 3rd PRIZE—JOHN MEISEL, Vibank, Sask.

There were scores of entries showing much skill in coloring and Mr. Dale has awarded Certificates of Merit to the following contestants:—

MANITOBA

Tommy Howlett
Richard Bobier
Robin Baker
Edna Buchanan
Miriam Davis
Bob Emerson
Ruby Graham
Russell Graham
Ada May Grasby
W. S. Littlejohn
Jessie McKay
Ethel Pogue
George B. Reid
Lyll Robinson
Winnifred Storey
Jacob Unran
Oliver Whitehouse
Jack White
Harold Whiteside

SASKATCHEWAN

Mae A. Abel
Mayfred Allcock
Ida Anderson
Mary H. Bartel
Otis Brack
Clarence Burton
Edward S. Ball
Josephine Belfry
Margaret Burr
Muriel A. Cory
Ange Christena Catton
Edgar Colenutt
Jim Campbell
Margaret Jane Clark

Irene Dart
Pearl Forge
Ferdinand Goodman
Oscar Gfroer
Gordon H. Goodfellow
Gertrude Groseth
Emil Hedstrom
Violet W. E. Howslip
Daniel Hoover
Melville Hepburn
Howard W. Johnson
Bertha Klimm
Clifford Kruger



Frank Knox
Ella Locken
Mary Lloyd
John Lockwood
Mollie R. Lambert
Duncan McKenzie
Gordon F. Marsh
George Moerike
Mary Eillen Mort
Thelma McKerracher
Albert Moe
Ronald F. Oliver
Ian R. Prentice

Wesley Pearce
Freddie Rix
Mignonne St. Martin
Almer Skogen
Fern Sager
Marvin Skogen
Carl Stenner
Helen Thompson
Harold Taylor
Ada May Unsworth
Russell Williamson
Roy Angus Wilkie
Raymond Wallace

ALBERTA

A. Chenback
Dorothy Aker
Muriel Carritt
Wm. N. Florence
Roby H. Faulkner
Leo Fleming
Hazel Hunking
Roy Hosler
Arthur C. Hockett
Eula Hurd
George Haythorne
Margaret Hancox
Rea Howard
Hans Rathman Kruse
Oswald Parr
P. Reece
Frank Ryall
Louisa Schultz
Lily E. Saffran
Ruth Irene Taylor
Ruth Thomas

These Cash Prizes and Certificates of Merit were awarded for coloring the insert that is given with each Doo Dad Book.

There is a competition each month, with a First Prize of \$5.00, a Second Prize of \$3.00, and a Third Prize of \$2.00. In addition to the Cash Prizes Certificates of Merit are given to each boy and girl who sends in a contest sheet well and neatly colored.

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Signed

Age..... P.O.....

Boy or Girl..... Province.....



THE DOODADS CAPTURE THE WUNX

The End of the Rainbow

AS THE DOODADS FOLLOWED THE WILD WUNX'S TRAIL BY MOUNTAIN, BY VALLEY, BY HILL AND BY DALE THEY CAME TO A LAND WHERE EACH TREE AND STONE HAD A SEPARATE COLOUR ALL OF ITS OWN EACH INSECT AND BIRD HAD A DIFFERENT HUE SOME ORANGE, SOME PURPLE, SOME RED AND SOME BLUE THE OLD DOCTOR STOPPED AND SAID HE "MY FRIENDS THIS MUST BE THE LAND WHERE THE BRIGHT RAINBOW ENDS I WAS HERE ONCE BEFORE, LONG LONG YEARS AGO AND SAID HE LOOKING 'ROUND, 'TIS THE SAME PLACE I KNOW AND IT SEEMS TO ME THAT I HAVE BEEN TOLD THAT JUST OVER THE HILL LIES THE BIG-POT OF GOLD THE DOODADS ALL SHOUTED AND CRIED OUT IN GLEE, AND WHEN THEY CAME TO THE HILL TOP WHAT DID THEY SEE?



A RAINBOW THAT CAME RIGHT DOWN TO THE GROUND, AND THE BIG POT OF GOLD THAT HAD NEVER BEEN FOUND! AND CLOSE BY ON A TOADSTOOL SAT A QUEER LITTLE MAN AS THOUGH HE'D BEEN THERE SINCE THE WORLD FIRST BEGAN AND AS THE DOODADS LOOKED AT THIS FIGURE SO QUAIN'T THEY SAW HE WAS STIRRING AND MIXING SOME PAINT IN A GREAT PAINT-POT, AND AS HE STIRRED WITH HIS SPADE HE POURED IN BRIGHT COLOURS OF EVERY KNOWN SHADE AS THE DOODADS DREW NEAR HE CLIMBED DOWN FROM HIS PLACE AND HASTENED TO GREET THEM WITH A SMILE ON HIS FACE. SAID HE "YOU ARE THE DOODADS THAT I WELL KNOW BUT WHERE DO YOU COME FROM AND WHERE DO YOU GO THE DOCTOLD HIM AND ASKED JUST WHO HE MIGHT BE. "I AM THE OLD MAN OF THE RAINBOW," SAID HE. "WE PAINT THE GREAT RAINBOW, I AND MY BROTHER I PAINT FROM THIS END AND HE PAINTS FROM THE OTHER. I SUPPOSE THAT YOU THINK THAT I'M RATHER OLD FOR A HUGE TASK LIKE THIS BUT IF THE TRUTH MUST BE TOLD FOR A HUNDRED YEARS I GROW OLDER AND THEN I TURN RIGHT AROUND AND GROW YOUNGER AGAIN. IT IS WELL THAT 'TIS SO FOR IF I SHOULD DIE, THE BRIGHT RAINBOW WOULD NEVERMORE SHINE IN THE SKY FOR NO ONE, NOT EVEN MY BROTHER DOES KNOW HOW TO MIX THE STRIPED PAINT FOR THE SUMMER RAINBOW." THE DOODADS INSPECTED THE GREAT POT OF GOLD AND THE STRIPED PAINT OF WHICH THE OLD FELLOW HAD TOLD AND WOULD GLADLY HAVE STAYED THERE THE REST OF THE DAY BUT DOC SAWBONES SAID "COME, WE MUST BE ON OUR WAY." AND AS THE OLD MAN SHOUTED FAREWELL TO HIS FRIENDS THEY PASSED OUT OF THE LAND WHERE THE BRIGHT RAINBOW ENDS

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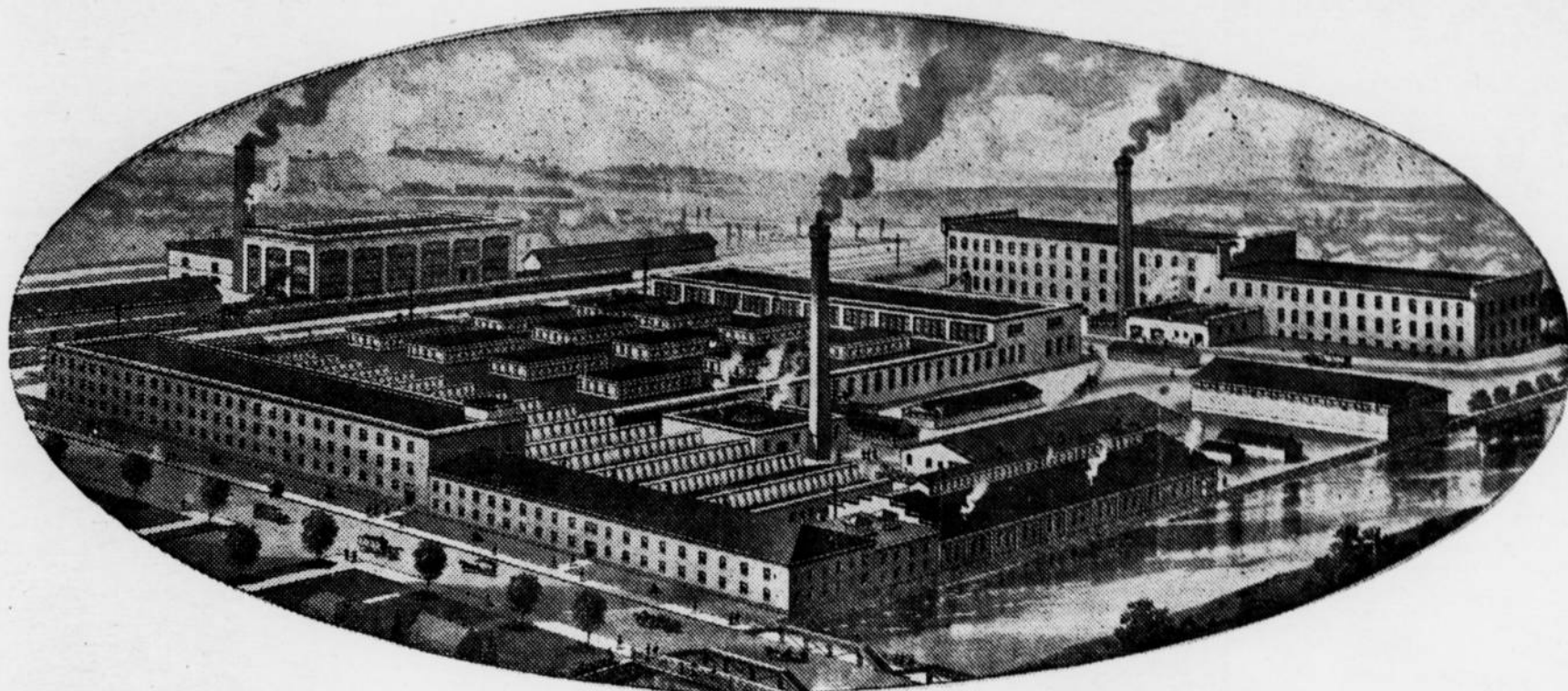
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The cost of the new plant and machinery will be \$300,000, and will be in operation this coming fall. The present plant in full operation employs

400, whilst this new development will increase the pay-roll about 50 per cent., making this institution the premier mills of its kind in the country.

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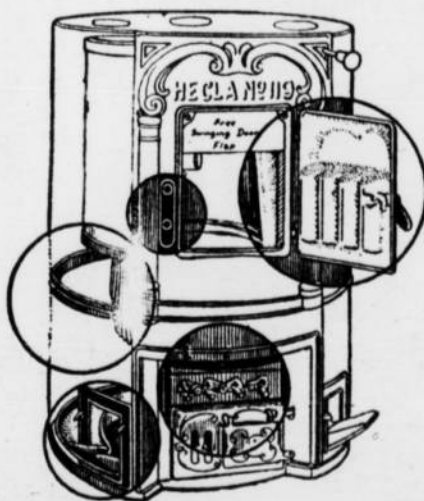
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Farm Women's Clubs

Review Year's Work

OWING to our secretary, Mrs. Hindle, leaving for England in September, and the newly appointed secretary then leaving in December for the East, we have been kind of up against it in regard to sending in reports, so we thought we had better get busy and send you some account of our doings, that you might get your convention report in shape. We began our meetings for 1919 in February, and held one each month excepting March and October.

We have 18 paid-up members for 1919. The secretary secured \$11.25 from subscriptions to The Guide, and this, along with 24 more, was sent to a family who had lost both barn and horses by fire. We also sent another woman whose house was burned \$15 and \$25 to Mrs. Roberts of Saskatoon, total \$75.25. We gave six chairs and couch to rest room. This year we divided our members into committees, each responsible for a meeting. This proved very satisfactory as by this means we got all members to take part.

In May we sent a delegate to interview the town council re help for the rest room and secured \$150 from them. In September we held a returned soldiers' welcome at which a good program was rendered. Then each of our thirteen returned men was presented with a watch fob.

During the same month we gave a farewell to our secretary, Mrs. Hindle, who was leaving for England. This meeting was held in the evening and the men members were requested to join us. We spent a very social evening and presented Mrs. Hindle with a silver sandwich plate.

In November we sent Mrs. Thompson as delegate to district convention. She brought back a very interesting and instructive report. At our November meeting we appointed two to canvass our district for the Liberty Drive and succeeded in collecting over \$52. In November we decided to appoint our officers for 1920, so that if unfavorable weather prevented a December meeting we would have our officers ready to start 1920 work. The officers elected were as follows: President, Mrs. R. A. Dale; vice-president, Mrs. Clark; secretary, Mrs. Thompson, Mrs. N. J. Graham, secretary pro tem., W.G.G.A.

Good Committee Work

We began the year in rather bad shape as no meeting had been held since October of 1918 owing to the epidemic. We held our annual meeting last January 7 at the same time as the men, but only five women were there. We re-elected our old officers, then phoned afterwards to each one asking for her approval. All consented to act again and we planned to meet in February 7, but the "flu" was bad again and the meeting was very poorly attended. We appointed two delegates to the convention in Regina, but only one was able to attend, the other having "flu". She brought back a splendid report which was read at a general meeting of the local. Things stood still then till May when we had a directors' meeting and tried again. In June we had a very successful meeting and our membership began to increase. Since then a meeting has been held each month at the home of a member and all have been well attended. Lunch was served at each one, the hostess providing tea or coffee and certain members bringing cake and sandwiches. Visitors were invited and cordially welcomed. In most cases they joined after a short time. Each meeting was advertised in the local paper.

Different committees were appointed for the different phases of our work: hospital, membership, refreshment, and program. Each committee served three months. The hospital committee visited our Municipal Hospital, asked their needs, and we supplied them as far as we could. We took up a ten-cent collection at one meeting, purchased material for and made three surgical gowns, gave a donation of twenty-five dollars to the Hospital Aid and subscribed for two magazines for 1920 as a Xmas box for the staff. Individual

members also made gifts of cream buttermilk, fruit, home-made bread etc. The refreshment committee took the responsibility of choosing from the membership list those who should be asked to provide lunch for the coming meeting so that all might have a share in helping. The membership committee at each meeting interviewed visitors with a view to increased membership, also at any other time as they had opportunity. Our list at our annual meeting numbered forty-five with five brand new ones for 1920. At each meeting the program committee provided a nice entertainment of music, recitation or readings, also several papers. We had a paper on The Need of Studying the Farmers' Platform, Saskatchewan Laws as Affecting Women and Children, and The Tariff as it Affects Women. At one meeting our membership committee reported a difficulty in obtaining new members at full fee of \$2. In view of the fact that our greatest need was increased membership and after much discussion we decided to reduce our fee to the Central one of \$1.00, and planned to raise funds for local needs in other ways. Those who had already paid the two dollar fee were to be carried over as paid up members for 1920. To raise money we held a lawn social, two cooking sales, and competed for a prize offered by the local agricultural society at the fall fair, for the best exhibit of women's work. Program committee took charge of the social which netted us \$18.50 by sale of ice cream, and the refreshment committee of the cooking sales resulted in \$39.35. Our exhibit took two prizes \$8. At the end of the year we had a balance of \$76.75. When the circulars, asking for help for the dried areas, reached us we co-operated with the town Homemakers' Club and shipped four large boxes to Mr. Malloy. Our annual meeting was held in December with a very good attendance. I am enclosing a list of our new officers.

Our plan of having our committee appointed every three months has worked so well that we have adopted it for 1920 with the difference that the executive will plan the educational part of the program for the whole year, and the three months committee arrange for the music, etc.—Mrs. Geo. Tipper, secretary, Davidson, W.G.G.A.

Wins Silver Cup

The Cardell Women's Section was organized on January 30, 1919, electing the following officers: President, Mrs. J. Badham; Vice-President, Mrs. Hamilton Moorehead; Sec.-Treasurer, Miss F. E. Cumberland.

During the past year we held one organization, fourteen regular and one directors' meeting. These meetings were usually held in the various members' homes. We open by singing the Maple Leaf (one stanza) and close our business by singing God Save the King. This is followed by afternoon tea. We have had an average attendance at our meetings, of about nine members.

During the year we have started a small library, having had a grant of money from local, also money from our own treasury for same, and were also assisted by a donation of books from the Extension Department of the University of Saskatchewan.

A committee from our Women's Section interested the school board in pur-

chasing an organ for school, which we feel is a splendid addition to the school equipment. We held a concert on April 25th. We served refreshments after the program.

Our local, assisted by Womens Section, won the silver cup donated by the Merchants Bank for the best display of vegetables, grains and grasses by any local in this district, at the Maple Creek Exhibition.

We held a very enjoyable masquerade dance in Cardell school on Hallowe'en. We also sent \$5.00 to the Liberty Drive fund from our treasury. We assisted the school board with the Christmas tree by providing refreshments, candy and nuts.—Miss Cumberland, secretary Maple Creek W.G.G.A.



Mrs. M. L. Sears, of Nanton.
Elected President of the United Farm Women of Alberta for 1920.

Local Finds U.F.W.A. Helpful

The Wildmere U.F.W.A. was organized on April 30, 1919, by Mrs. A. M. Postans, director of Battle River Constituency, with a membership of eleven. Two members have since

removed from the district and the local now has nine paid-up members on the roll. Monthly meetings were arranged and have been held regularly during the remaining eight months of the year. Programs and topics for discussion have been arranged by the committee appointed for that purpose, also interesting papers have been read at each meeting by different ladies on various subjects.

In June the U.F.A. united with this local and a picnic and dance was arranged and held at Wildmere. All expenses were covered by the proceeds with small balance over. In November the subject of school lunches was taken up and hot drinks or soup are now daily supplied to the school children free of charge.

The members have also, in addition to their own meetings, attended the monthly meetings of the U.F.A. and at the close of the business proceedings, a very pleasant social gathering is held and refreshments served, which is especially appreciated by the men members. The U.F.A. are finding they can accomplish much more with the co-operation and help of the women, who, especially in educational matters and matters affecting the home, are much more progressive.

Our local on the whole has been successful, although we have had many things to contend with, owing to weather conditions and the subsequent poor crops. This, to a large extent, has hindered our progress, but, with the coming months, we hope to accomplish far greater things, for co-operation is the key to the future. With the united efforts of the men and women of our farms our movement will grow, but, in looking back over the past year, we all can plainly see that the united interest and enthusiasm of both is needed if this organization is to win the success we would have it win.

There is a splendid spirit of unity and friendship growing among the farm women in this local and we hope to largely increase our membership during the year 1920.—Mrs. Colin Smith, secretary.

Our last meeting was very interesting. We served lunch at the Girls' and Boys' Club Fair at Justice, and the proceeds amounted to \$27.—Violet Sandercock, secretary, Justice, W.S.G.G.A., Man.

COOKERY COLUMN

COCOA FRUIT BREAD

- 1 cup sugar
 - 2½ cups graham flour
 - ¼ cup Cowan Cocoa
 - 3 tablespoons shortening
 - ¾ cup walnuts
 - ¼ teaspoon cinnamon
 - 1 teaspoon salt
 - 5 teaspoons baking powder
 - 1 cup milk
 - ¾ cup raisins
 - 1 teaspoon vanilla
1. Mix and sift dry ingredients.
 2. Add milk.
 3. Add shortening, melted.
 4. Add fruit and nuts, floured.
 5. Turn into greased and floured pan.
 6. Bake in a moderate oven twenty minutes.

COCOA BROWNIES

- ½ cup butter
- 6 tablespoons Cowan Cocoa
- 2 eggs
- 1 cup powdered sugar
- 1 cup flour
- ½ cup chopped nuts

Mix as for cake; spread batter on buttered tins as thinly as possible; sprinkle very finely chopped nuts on top. Bake in a very moderate oven till lightly browned. Cut in fancy shapes before removing from pan.



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HORSES! HORSES!! HORSES!!! A. LAYZELL Company Limited, Alberta Stock Yards, Calgary Auction sales every Monday, Wednesday and Friday. 250 to 500 head always on hand. Owing to drought in Southern Alberta, horses are cheap. Car loads of one, two and three-year-old Clyde, Percheron and Shire colts can always be secured. Heavy work teams, mares and geldings and nice chunky horses at a snap. Write or wire us for prices—or better, come and attend our sales. Country and pure-bred sales a specialty. Phones: E.5107 and E. 5499. Layzell & Durno, auctioneers for the company. 40tf

FOR SALE—REGISTERED PERCHERON STALLION, 1,800 pounds, six years old, enrolment class A, sound and good foal getter. Reason for selling, four years on same route. Viscount Percheron Horse Co., Theo. Bergren, secretary-treasurer, Box 100, Viscount, Sask. 6-3

SELLING—CLYDESDALE STALLIONS. GLAD Tidings, 17757, six years old, weight about 1,800. Hindward Crest, imp., 13767 (16637), nine years old, weight about 2,100. Choice of one of the above. C. Hayes, Box 94, Eyebrow, Sask. 6-2

REGISTERED PERCHERONS FOR SALE—Raising yearling and two-year-old stallion colts sired by my international winner, Fairhope, and other sires of note. These colts have plenty of size, bone and quality. Priced right. Ross G. Williams, Regina, Sask. Box 685. 4-4

FOR SALE OR HIRE UNDER GOVERNMENT club, Clydesdale stallion, age nine years, registered in class A, quiet in harness, Sir Dubar, by Barons Pride, weight one ton. Reason for selling, five years in district. Box 82, Kenton, Man. 6-2

SELLING—TWO IMPORTED BELGIAN mares, nine years. Home bred, one coming six one coming four, one three, one two, one five years. Morgan stallion imported from Kentucky. Peter Bergmann, Plum Coulee, Man. 6-3

JAS. H. CROWE, GILBERT PLAINS, MAN., breeder and importer of pure-bred Percherons, both sexes, all ages. Buy a colt and mature your own stallion; at your own price and terms. Maple Valley Stock Farm. 1-1f

FOR SALE—CLYDESDALE STALLION, RISING seven years old, Schedule A, grandson of Baron Buchlyvie. Guaranteed sure foal getter. His stock can be seen. Apply A. F. Webster, Welwyn, Sask. 5-3

SELLING—REGISTERED CLYDESDALE STALLION, seven years; inspected last year, class A; sure foal getter. Reason for selling, has been on same route four years. R. G. Cuthill, Box 121, Virden, Man. 5-2

TWO STYLISH, CREAM-COLORED PONIES and one bay, all geldings; black mare; all rising four years, gentle, broken to ride. Suit lady or boy. Delivered free within 35 miles. Ratcliffe Buffalo Head, Sask. 5-2

FOR SALE—THE PURE-BRED IMPORTED Percheron stallion, Kamp, No. 95566, foaled April 21, 1910; color, black; weight, 1,900 pounds. For full particulars apply to Mr. A. J. McGovern, Lampman, Sask. 6-2

IMPORTED CLYDESDALE STALLION FOR sale, cheap, or trade, what have you? 12 years old, sound, 1,700 pounds, sure foal getter, broke to all harness. Ray Harrison, Red Willow, Alta. 6-2

SELLING—REGISTERED CLYDESDALE STALLION, rising three; splendid show proposition, best of breeding. Priced right for cash. Harry Hysop & Son, Spruce Lawn, Killarney, Man. 6-2

SELLING—IMPORTED CLYDE STALLION Lord Sunday, class A certificate, Saskatchewan government. Wm. S. Muir, Saltcoats, Sask. 6-2

SALE OR EXCHANGE—THREE REGISTERED Clyde mares, 3-5-10 years, one in foal; also heavy Clyde stallion, young; four heavy young geldings. Wilfred Winsor, Kincaid, Sask. 6-2

SELLING—REGISTERED PERCHERON STALLION, foaled April 18th, 1913. Enrolment Class A, Serial No. 531. Sure foal-getter. For particulars, write W. H. Davies, Evesham, Sask. 6-3

SELLING—ONE PURE-BRED BELGIAN STALLION, five years; one, two years; one, year old with plenty of size and quality. J. Hodgen, Halbrite, Sask. 6-3

SHIRE STALLION AND WORK HORSES FOR sale or exchange for light tractor or Ford car. Geo. Walldroff, Ceres, Alta. 5-2

FOR SALE—REGISTERED CLYDESDALE STALLION, eight years old, class A certificate. S. Frederickson, Box 13, Glenboro, Man. 6-2

SALE OR TRADE—CLYDESDALE STALLION, rising four, for cattle or sheep. Ernest Osborne, Fleming, Sask. 6-3

FOR SALE OR TRADE—REGISTERED PERCHERON STALLION, weight 2,000. Oscar Lincoln, Parry, Sask. 5-3

FOR SALE OR HIRE, UNDER THE FEDERAL System, two Clydesdale stallions: Clyde Prince Charlie, foaled June, 1912, and Lothian Mac II., foaled May 20th, 1915. George & Watson, Deloraine, Man. 5-2

FOR SALE—PERCHERON STALLION, PHEA- dore II. (4552), 74975, color grey, weight 2,100, very quiet, good foal getter. H. R. Kerfoot, 11111, Sask. 4-4

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Count each initial as a full word, also count each set of four figures as a full word. As for example: "T. P. White has 2,100 acres for sale" contains eight words. Be sure and sign your name and address. Do not have any answers come to The Guide. The name and address must be counted as part of the advertisement and paid for at the same rate. All advertisements must be classified under the heading which applies most closely to the article advertised. No display type or display lines will be allowed in classified advertisements. All orders for classified advertising must be accompanied by cash. Advertisements for this page must reach us seven days in advance of publication day, which is every Wednesday. Orders for cancellation must also reach us seven days in advance.

HORSES—(Continued)

IMPORTED SHIRE STALLION—NINE YEARS, bay, white points, thick, low set, sure, sound. Well broken to harness. Price \$500. Two years' time, 7%. Shire mare, five years, by above sire, out of imported mare; thick, low set; makes good mate in team to stallion. \$250. Team mares, four and five, bay, 2,400 pounds, sound \$250. Agricultural mare, chestnut, 10 years, 1,400 pounds, sound, good worker and brood mare. \$160. James M. Ewens, Bethany, Man.

SELLING—CLYDESDALE STALLIONS. ELA- tor Baron, 14571, foaled June 29, 1911, by Black Rod, 3841. Good sire in first class shape. Also Baron Charnier, 21916, foaled April 6, 1917, by Elator Baron. McClelland Bros., Emerson, Man. 6-4

SELLING—IMPORTED STALLIONS. TWO- three-year-old Belgians, one four-year-old Percheron, one eight-year-old Percheron. Feed shortage. Prices low. A. L. Watson, Brough, Sask. 6-4

FOR SALE—IMPORTED CLYDESDALE STALLION Crossrig Yet, 13527, (16894), aged 10 years, 1,800 pounds. Guaranteed foal getter, enrolled under schedule A. Will club if not sold. Clubbed 1919 at Harte. Henry Sangster, Oak Bluff, Man. 6-2

A LARGE PROPORTION OF GRAIN FED TO horses infested with bots and worms is wasted. Peerless Stock Tonic will eradicate them and aid digestion. Write us. Peerless Products Company, Brandon, Man. 2tf

FOR SALE—PONY, FOR SADDLE ONLY, SIX years, 12 hands, sound; or would trade for pair good wolf hounds. A. E. Peck, Colonsay, Sask. 6-4

SELLING—TEAM OF GENERAL PURPOSE horses, four years old, \$375 cash. A. Dickey, Crandall, Man. 5-2

PERCHERONS—A FEW YOUNG STALLIONS. Feed shortage. Prices low. W. R. Barker, Deloraine, Man. 3-4

SELLING—PURE-BRED PERCHERON STALLION, aged, sure foal getter. Can be bought very cheap. S. Honey, Binsearth, Man. 4-3

PURE BRED BLACK PERCHERON STALLION, got 13 his fillies reason for sale. Big bone, good stock. M. A. Hewitt, Bengough, Sask. 4-6

FOR SALE—PERCHERON STALLION, REGIS- tered. First class horse, five years old. Mann Bros., Bridgeford, Sask. 6-3

FOR SALE—BELGIAN STALLIONS, ALL AGES. Leon Nachtegale, North Battleford Sask. 1-13

SHEEP

GOOD GRADE BREEDING EWES IN LAMB to registered rams. The safest, surest and quickest way to make money from livestock. For sale by Simon Downie & Sons, Carstairs, Alta. Phone 4. 1-2tf

SWINE

BRED SOWS—HIGH CLASS REGISTERED Duroc-Jersey sows, also a few males, from our large prize herd. Lots of new imported blood for old customers and breeders. Write for particulars and pedigrees. J. W. Bailey & Sons, importers and breeders, Wetaskiwin, Alta.

SELLING—REGISTERED DUROC-JERSEY sows, bred to bear winning prize Regina. Weight 175 to 250 lbs. \$65 to \$75. Sam Stoltz, Nokomis, Sask. Box 85. 4-3

REGISTERED BERKSHIRES, EXCELLENT stock; yearling sows and gilts, bred, \$50 up; four-months-old pigs, \$20 each. Booking orders for spring litters, \$20. G. C. Hunter, Wetaskiwin, Alta.

FOR SALE—DUROC-JERSEY BOAR, HAT- field Chief, sire Chief Hatfield, 6029, \$75; two boars, May, 1919, litter, \$40 each. Would exchange. Hope, Box 1584, Calgary, Alta. 5-2

SELLING—REGISTERED HAMPSHIRE BOAR, \$60. Three years old, weight 600 pounds. Also litter carrier, new, six bus., 100 feet track. \$30. Chas. A. Dezotell, Davidson, Sask. 6-2

SELLING—REGISTERED DUROC-JERSEYS; Gilts bred; boar nine months old; Rose Comb Red cockerels, from inspected flock, \$2.50, \$3.00. Edgar Hood, Hinton, Sask. 6-2

FOR SALE—TWO REGISTERED DUROC- Jersey bred sows; April farrowed. \$50 each. Geo. Carlsson, Venn, Sask. 6-2

SELLING—TWO THOROUGHbred DUROC- Jersey boars, fit for service. Bailey line. \$10 each. Wm. Coleman, Vanguard, Sask. 6-2

FOR SALE—ONE REGISTERED YORKSHIRE boar, twenty months old; proved breeder. Price \$45. Write J. Waldron, Flbow, Sask. 6-2

CATTLE

ALAMEDA STOCK FARM HAS FOR SALE 3 extra good bulls, one year old this month, six young cows all in good shape, and good quality; 10 Shetland ponies, yearlings, must sell this month. Pony harness and carts always on hand. Correspondence solicited. R. H. Scott, Alameda, Sask. 15t

WILLOW BANK STOCK FARM, ESTABLISHED 1855, have for sale a splendid lot of young Shorthorn bulls and females by the great Brown-dale by Avondale. Write for further information. James Douglas, Caledonia, Ontario. 3-4

WANTED—AN AGED SHORTHORN BULL, fashionable breeding, good quality. Tuberculin-tested and guaranteed a sure breeder. State registered number, weight and price. Advertiser, c/o Union Bank, Esterhazy, Sask. 5-2

OUR RED POLLS WON GRAND CHAMPION- ship on females at fourteen shows in 1919, including Chicago International. Write us. Jean du Luth Farms, Duluth & Nickerson, Minn. 1-tf

Eggs for Hatching

We Can Sell Yours Too

Hundreds of the best farmers in Western Canada know that The Guide classified ads. bring results—big results. Here's what they tell us.

We Did It For Them

- Jan. 1, 1920.—W. D. WILEY, Carman, Man. (Guinea Fowl)—"One ad. brought 16 more orders than we could fill."
Jan. 6, 1920.—J. H. RUTHERFORD, Albion, Ont. (Turkeys and Geese)—"Ran four ads. Birds all sold by time last ad. appeared."
Jan. 8, 1920.—Mrs. GEO. DUNS, Langenburg, Sask. (R.C. Reds)—"Best of success. Could have sold twice as many cockerels."
Jan. 11, 1920.—T. W. SPENCE, Rosetown, Sask. (Barred Rocks)—"Cockerels all sold. Am still getting letters."
Jan. 26, 1920.—A. BEDDOME, Minnedosa, Man. (White Wyandottes)—"Through two ads. sold all cockerels. Will be advertising eggs soon."

We Can Do It For You, Because

FIRST—The Guide does more to promote interest in and encourage results for the classified advertisers than any other farm paper in Western Canada. **SECONDLY**—The Guide carries the most classified advertising in this field; and you know most people refer to the paper carrying the most advertising. **THIRDLY**—The Guide has the largest farm-journal circulation in Western Canada, and a low rate in proportion.

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The Grain Growers' Guide, Winnipeg, Man.

CATTLE—(Continued)

SHORTHORN BULL—PRINCE OF OAKLEY Park, 100654, dark red, five years in March. Sire, Sultan's Prince; dam, Patriots Gwynne. Cost \$200 in Ontario as calf. Won three first prizes, only times shown. A wonderfully sure and impressive sire. All calves dark red or roan. Price \$300. Also one roan and one red cow, due calve July. \$200 each. James M. Ewens, Bethany, Man.

V. G. BRYAN, BRIDGEFORD, SASK., BREEDER of Shorthorn cattle. Herd headed by Ramsden Sultan, 84074, by Superb Sultan, by Whitehall Sultan. Several choice young bulls for sale at reasonable prices. 6-3

SELLING SHORTHORNS—MY HERD HEADER, also three young bulls sired by him. Write for copy of pedigrees or visit the farm. Peter Suddaby, Lavoy, Alta. 6-3

FOR SALE—PURE-BRED SHORTHORN BULL, six years old, quiet. Took first prize Melville fair 1918. \$200. Wotherspoon & Sons, Melville, Sask. 6-2

SELLING—TWO REGISTERED ANGUS BULLS, year old in May. Prices reasonable. Write T. S. Coyle, Cornfield, Sask.; Glidden Station, Eston, Elrose line. 6-5

SHORTHORN BULL, GOLDEN DUKE—THREE years old; registered. Quick sale \$225. Alex. Sim, Grenfell, Sask. 6-2

WANTED—REGISTERED HEREFORD BULL. Will pay about \$150. Write W. Arnold, Rocanville, Sask. 6-2

REGISTERED ABERDEEN-ANGUS BULL— Four years. \$175, f.o.b. Ninga, C.P., or Margaret, C.N. J. A. Lyon, Ninga, Man.

FOR SALE—AYRSHIRES. TWO COWS AND one yearling heifer, a heifer and bull calves, four months. Earl McQuat, Adanac, Sask. 6-2

WANTED—REGISTERED SHORTHORN BULL, not under 16 months. State price and particulars to Chris. B. Johnsen, Norquay, Sask.

THREE ANGUS BULLS—ONE 10, ONE 20 months and four-year-old herd bull. Price \$200, \$250 and \$400. Apply Geo. W. Cornwall, Dauphin, Man. 4-3

FOR SALE—FOUR REGISTERED HEREFORD bulls, one coming two-year-old and three coming one year. All in good shape and fit for service. J. H. Oneil, Crossfield, Alta. 4-3

FOR SALE—REGISTERED ANGUS BULL calves, 10 months. Big, growthy fellows. Choice bred and priced right, \$125 to \$150. Forest Home Stock Farm, Herton, Man. 3-5

FOR SALE—PURE-BRED ABERDEEN- Angus. A few choice bulls on hand. Prices right. L. H. Newville, Wetaskiwin, Alta. Route 2. 3-8

SELLING—TWO PURE-BRED HOLSTEIN bull calves, one born last December and one in January. Price \$30 each. Ira S. Gingrich, Guernsey, Sask. 4-3

SHORTHORNS—ONE ROAN YEARLING BULL, by imported sire; also one dark red by imported dam and sire. Wm. S. Muir, Saltcoats, Sask. 6-2

FOR SALE—RED-ROLLED CATTLE, BULLS and heifers. E. & W. Darnbrough, Laura, Sask. 45tf

CHOICE REGISTERED ABERDEEN-ANGUS males, eight to 10 months, \$150 to \$200 each. Connor & Hutchinson, Goodwater, Sask. 49-7

SELLING—PURE-BRED SHORTHORN BULL, two years old, roan. W. H. Cross, Kincaid, Sask. 5-2

SELLING—REGISTERED RED POLLED bulls. E. Kaeding, Churchbridge, Sask. 5-5

BROWNE BROS., NEUDORF, SASK., BREED- ers of Aberdeen-Angus cattle. Stock for sale.

STOCK—Miscellaneous

FOR IMMEDIATE SALE—HAVING SOLD MY farm and because I am leaving the country, I will sell my entire herd of choice registered Red Polled cattle at prices unheard of before. Five bulls, from 10 months to two years old; some heifers and cows in calf; also registered Percheron stallion, two years, with weight, style and bone. A. J. Varer, Wadena, Sask. 4-3

FOR SALE—CLYDESDALE STALLIONS, mares and fillies, ten Shorthorn bulls by imp. Mountain Bard; 20 cows and heifers in calf to Mountain Bard; a splendid lot of Oxford Down rams, one and two shears, also lambs; Yorkshire boars and sows, breeding age. An extra choice lot of Barred Rock cockerels. Stations, Carman and Roland. Andrew Graham, Roland, Man. 40tf

SHORTHORNS AND SHROPSHIRE—CON- sisting of a few choice bulls which should be at the head of good herds. Females in calf, or calf by side, of the best breeding. Imported and Home-bred Rams and Ewes from best English flocks. Jno. Miller, Ashburn, Ont. 40tf

SELLING—REGISTERED SUFFOLKS, TWO mares, one stallion, workers and breeders; one registered Clyde mare, heavy, No. 42134, five years; all very cheap. Rose Comb Rhode Island cockerels, \$3.50. A. J. Boughen, Dauphin, Man. 4-3

FOR SALE—CHOICE YOUNG YORKSHIRE boars and sows; two Shorthorn bulls, one Ayrshire bull; Early Ohio seed potatoes. A. D. McDonald & Sons, Narinka, Man. 17tf

DOGS

SELLING—WOLFHOUND. FAST AND GOOD killer, big dog, \$50; one female, gray and stag seven months, \$10. James Smith, Macgregor, Man.

WANTED—AIRDALE PUP AND POLLED Hereford bull calf, registered stock. State price and particulars. John Antell, O'Malley, Sask.

SELLING—THREE WOLFHOUNDS, STAG, Grey, Cross. Fast. \$40 each. D. Taylor, Oak Lake, Man. 6-2

SELLING—THREE GREYHOUNDS, TWO Stags, one Russian, trained. C. W. Murray, Rokeby. 5-2

WANTED—TWO ST. BERNARD PUPS (MALE) Box 37, Kipling, Sask. 5-2

SCOTCH COLLIE PUPPIES—\$7.00 EACH. CASH orders. J. F. Weatherall, Parry, Sask.

TURKEYS, GEESSE AND DUCKS

ALBERTA'S BEST WHITE HOLLAND TURKEYS. Three toms for sale, \$9.00, \$10 and \$11 each. Weight 22 to 25 pounds. Two good hens, \$6.00 each. E. H. Young & Sons, De Winton, Alta.

PURE-BRED TOULOUSE GEESSE, EXTRA large, price \$7.00 each. A. B. LaRose, Tyvan, Sask.

MAMMOTH BRONZE TURKEYS—TOMS \$5.00; hens, \$6.00. Remember early mating brings best results. H. M. Crabb, Borden, Sask.

MAMMOTH BRONZE TURKEY TOMS—MAY hatch, \$10. Jas. Dux, Macdonald, Man.

FOR SALE—PEKIN DUCKS AND DRAKES. \$2.50 each. Mrs. Herd, Bounty, Sask.

PLYMOUTH ROCKS

WHITE PLYMOUTH ROCK COCKERELS. \$3.00, \$4.00 and \$5.00 each; also limited number of Barred Rock Cockerels at same price. Birds kept on separate farms. Walter James & Sons, Rosser, Man.

PURE BARRED ROCK COCKERELS, BIG birds, bred from M. A. College imported stock, \$1.00 Single Comb White Leghorns, \$3.00. Bergey Bros., Rosser, Man.

PURE-BRED BARRED ROCKS—VIGOROUS, weighty, farm-raised utility cockerels from heavy layers. \$3.00 and \$5.00. J. C. McDermott, Hazebidge, Man.

60 BIG THRIFTY BARRED ROCK COCKERELS. \$5.00 each; a few show birds, \$10. We have bred same strain 22 years. Eggs for hatching, \$3.00 setting. F. E. Merritt, Milita, Man.

50 PURE-BRED BARRED ROCK COCKERELS. Guaranteed, fine barred, large, vigorous birds. \$4.00 each. Later hatched, two for \$5.00. Sure to please. Mrs. John McGinitie, Tofield, Alta.

BEAUTIFUL BARRED ROCK COCKERELS. Laying strain, product of 13 years culling and selecting. \$4.00 to \$5.00 each. C. G. Tjomsland, Spalding, Sask.

PURE-BRED BARRED ROCK COCKERELS. Vigorous, healthy birds; Cooper's Busy Bee strain. \$5.00. H. F. Hauser, Dubuc, Sask.

SELLING—PURE-BRED BARRED ROCK cockerels, from laying strain. \$3.00 each. James Johnston, Wilkie, Sask.

PURE-BRED BARRED ROCK COCKERELS. Guilds' bred to laying strain. \$3.75 each; two for \$7.00. Edw. Busta, Tugaskie, Sask.

SELLING—BARRED ROCK COCKERELS, OFF prize stock. \$2.50 each. James Smith, Macgregor, Man.

PURE-BRED BARRED ROCK COCKERELS. From good laying strain. \$3.00 each; two for \$5.00. Mrs. George Ballard, Francis, Sask.

BARRED ROCK COCKERELS—LAYING strain. \$4.00. Eggs, \$2.50 per fifteen; \$12 per hundred. J. Huston, Carman, Man.

U. R. FISHEL'S WHITE ROCK COCKERELS. \$4.00 each. Direct from Indiana State. Thomas Common, Hazel Cliffe, Sask.

WHITE ROCKS—EXCELLENT FARM-RAISED cockerels, \$6.00; two, \$10. Harriett Tutt, Rouleau, Sask.

BARRED ROCK COCKERELS, SHOW BIRDS. \$10. T. A. McInnis, 1937 Halifax Street, Regina.

PURE-BRED BARRED ROCKS COCKERELS and pullets, splendid laying strain, \$3.00 each. William Gifford, Glenside, Sask.

PURE-BRED WHITE ROCK COCKERELS— \$2.00 each or \$4.00 for 2 or more. Chas. W. Weaver, Deloraine, Man.

SELLING—PURE-BRED PLYMOUTH ROCK cockerels at \$2.50 each. Apply Mrs. J. W. Boettger, Findlater, Sask.

SELLING—PURE-BRED BARRED ROCK cockerels, from laying strain. \$3.00 each. James Johnston, Wilkie, Sask.

WHITE ROCK COCKERELS—\$2.50 EACH. James Mitchell, Valor, Sask.

RHODE ISLAND REDS

SINGLE COMB RHODE ISLAND REDS—LAST year by accident I became the owner of a few chicks of the best stock in America. I culled down to one cockerel and five pullets. Cockerel just won first Winnipeg Show. The first \$100 takes the pen, exactly what the cockerel is worth. F. J. G. McArthur, 1330 Wolseley Ave., Winnipeg, Man.

GOEGLIN'S ROSE COMB RHODE ISLAND Reds. Are bred to lay, and bred to show in the largest shows in Canada. Have 25 cockerels at from \$5.00 to \$10 each. Hens and pullets all sold. Geo. H. Goeglein, Tofield, Alta.

SELLING—ROSE COMB RHODE ISLAND Red cockerels; also few single comb, good dark color, \$3.50 and \$4.00 each. Mrs. James O. Johnston, Yellow Grass, Sask.

ROSE COMB RHODE ISLAND RED COCK- erels. Fine dark birds; from prize-winning stock. \$3.00 to \$5.00 each. C. W. Deer, Tiny, Sask.

FOR SALE—ROSE COMB RHODE ISLAND Red cockerels, \$3.00 each; two for \$5.00. Large birds, from good laying strain. Frank Crawshaw, Macoun, Sask.

PURE SINGLE COMB REDS—HEAVY LAYING strain. Prize winning stock. Eggs, \$9.00 per hundred. Setting, \$2.00. Albert Robblee, Cayley, Alta.

FOR SALE—SINGLE COMB RHODE ISLAND cockerels; dark rich red. Classy birds. \$4.00 each. Wm. Drope, Avonlea, Sask.

RHODE ISLAND REDS SINGLE COMB COCK- erels. Direct from Illinois state. \$4.00 each. Thos. Common, Hazelcliff, Sask.

SELLING—PURE-BRED RHODE ISLAND RED cockerels. \$3.00. Neil Matheson, Foam Lake, Sask.

WYANDOTTES

WHITE WYANDOTTE COCKERELS, FROM same stock as my pen which won third prize, International Egg-Laying Contest, Victoria, B.C., 1919. Strong, vigorous, good egg type, \$5.00 and \$8.00. A. W. Cooke, Kelowna, Field, B.C.

WHITE WYANDOTTES—MARTIN'S REGAL. Cockerels from prize winter laying stock. \$3.00 and \$4.00. Two-year-old rock 2nd Brandon as cockerel. \$7.00. Mammoth Bronze turkeys, 12 pound, toms \$6.00, hens \$4.00. Miss M. Ewens, Bethany, Man.

REGAL WHITE WYANDOTTE COCKERELS. choice birds, Martin strain. \$3.00, \$5.00, and \$8.00 each. Satisfaction guaranteed. A. B. LaRose, Tyvan, Sask.

PURE-BRED WHITE WYANDOTTES FEW choice cockerels, \$5.00 to \$10; hens and pullets, \$3.00 to \$5.00. Satisfaction guaranteed. W. J. Rex, Box 227, Holland, Man.

CHOICE WHITE WYANDOTTE COCKERELS— From prize-winning male and good laying hens; large, vigorous birds. \$3.00 and \$5.00 each. A. O. Wright, Herbert, Sask.

ROSE COMB WHITE WYANDOTTE COCKER- els, Martin's Dorcas strain. \$3.00 each. Percy Hunt, McGee, Sask.

FOR SALE—WHITE WYANDOTTES. 25 HIGH class cockerels. Prices \$5.00 up to \$25. R. McCulloch, R.R. No. 4, Portage la Prairie, Man.

FOR SALE—WHITE WYANDOTTE COCKER- els, price \$3.00. Sarah Denhard, Ashern, Man.

GOOD WHITE WYANDOTTE COCKERELS, rose comb. \$3.00. Mrs. Bishop, Senlac, Sask.

WHITE WYANDOTTE COCKERELS, JUNE hatched. \$2.00. Brook, Dilkie, Sask.

ORPINGTONS

SINGLE COMB BUFF ORPINGTONS—THE beauty and utility breed. Entering on my twelfth year breeding and showing these beautiful birds, I find that I have fifty cockerels and one hundred females for sale. Laying year was the greatest I ever had for stock. Every fancier living in a city is crowded for room. Hereafter I only intend to breed a few birds. You can now start in at the very top. My wins in Manitoba, Saskatchewan, Alberta, British Columbia and Minnesota are well known. Let me sell you a pen of four females and one male at \$35, \$45 or \$50. Next fall you can have a flock of two hundred easy. Cockerels, pullets and hens from \$6.00 each up. High class show birds from \$25 each up. Eggs \$5.00 and \$10 for 15. Send for illustrated prize list. All one quality—the best. F. J. G. McArthur, 1330 Wolseley Ave., Winnipeg, Man.

BUFF ORPINGTON COCKERELS, SELECTED and bred for egg type, Tom Barron strain; strong, vigorous, \$5.00 and \$8.00. A. W. Cooke, Kelowna, Field, B.C.

MASSIVE BLACK ORPINGTON COCKERELS— Winners at Saskatoon Orpington Club Show 1920. Prices \$10, \$15, \$25 each. Harry Frampton, Neenawa, Man.

BUFF ORPINGTON COCKERELS—SPLENDID type and color. Satisfaction guaranteed. Harold Symons, route 1, Wanella, Sask.

FINE, BIG, WELL-MARKED BUFF ORPING- ton cockerels. \$4.00 each. W. H. Brown, Loverna, Sask.

PURE-BRED BLACK ORPINGTONS—COCK- erels, from first and second prize pens, \$3.00. Order early. Robert Turner, Rosendale, Man.

BUFF ORPINGTON COCKERELS—GOOD SIZE and color. \$3.00 each. Mrs. Gwyn, Vancoy, Sask.

FOR SALE—BUFF ORPINGTON COCKERELS, \$2.50. White Leghorn pullets, \$2.00. Edith Averill, Clanwilliam, Manitoba.

BUFF ORPINGTON COCKERELS—GOOD birds from prize stock. \$5.00 each. E. Anderson, Fleming, Sask.

SUNDY BREEDS

LONGMORE'S CHAMPION WHITE WYAN- dottes, a few good cockerels from \$5.00 up. Breeding and exhibiting for 30 years. Also a few good Buff Orpington cockerels. Yours for satisfaction. Have paid special attention to heavy laying qualities. Write John C. Longmore, 85th Street, Edmonton, Alberta.

CHOICE ROSE COMB RHODE ISLAND RED cockerels, Guild's strain. Single Comb Black Minorcas, \$3.50, \$5.00; pullets, \$3.00. White Rock, Barred Rock cockerels, \$4.00. Mammoth Bronze turkey hens, \$6.00. A. M. Crandell, Crandell, Man.

FOR SALE—PURE-BRED BARRED ROCK cockerels. From the Gould-laying strain. \$3.50, \$4.00 and \$5.00. Also few pure-bred Rhode Island Reds, same price. High View Poultry Farm, Carleton Place, Ont.

LIGHT BRAHMA, BLACK LANGSHAN, WHITE Rock cockerels, \$4.00. Toulouse ganders, \$5.00. Bronze toms \$5.00. White toms \$6.00. Albert White, Fairlight, Sask.

PURE-BRED BUFF ORPINGTON COCKERELS. April hatched. \$3.00 each. Pure-bred White Holland turkeys, hens \$5.00, toms \$6.00 each. Mrs. G. Greenfield, Nokomis, Sask.

S. C. WHITE LEGHORNS, BUFF ORPING- tons, Rouen ducks. Ellen Jickling, Dugald, Man.

TOM BARRON, 282-EGG-STRAIN DIRECT imported Wyandottes and Leghorn Cockerels. Mating list free. J. J. Funk, Morden, Man.

BABY CHICKS, OUR SPRING BOOKINGS heavy. Don't delay. Columbia Poultry Ranch, Steveston, B.C.

WANTED—FIFTY OR HUNDRED YOUNG hens. Alfred Lints, Decker, Man.

LEGHORNS

SINGLE COMB BROWN LEGHORN COCKER- els, pure-bred, \$2.00. Mrs. J. A. Leitch, Strathclair, Man.

SINGLE COMB WHITE LEGHORNS—COCK- erels, \$2.00 each or three for \$5.00; pullets, \$1.75 each. R. Mills, Box 168, Dunrea, Man.

SINGLE COMB WHITE LEGHORN COCKER- els. From good laying strain. \$2.00 each. T. W. McLean, Strathclair, Man.

POULTRY

POULTRY SUPPLIES—LEG BANDS, ALU- minum, 90c. 100; celluloid colored spiral \$1.00 100; egg boxes, 15 eggs, \$2.40 doz.; 30 eggs, \$3.50 doz.; incubator thermometers, \$1.00. Everything for poultrymen. Beautiful catalog free. Brett Mfg. Co., Winnipeg.

SEND FOR OUR FREE ILLUSTRATED catalogue of incubators, brooders, chick food, leg bands, and a complete line of poultry supplies. Sovereign Poultry Supply House, Ltd., Edmonton, Alta.

FOR SALE—CYPHERS INCUBATOR, 240 EGG. first-class condition. \$28. E. Young, Oak Lake, Man.

LIVESTOCK COMMISSION DEALERS

SHIP YOUR LIVESTOCK TO UNITED GRAIN Growers Limited, Livestock Department, St. Boniface, Calgary, Edmonton, Moose Jaw, and thus be sure of getting every last cent of value, together with any premiums that are going. If desired, all shipments can be fully insured. Write for particulars. Purchasing stocker feeders and breeding heifers, giving personal attention and securing special and free freight rates and Government expense refund attended to for you. Any district wishing to develop co-operative livestock shipping can have the service of one of our organizers free of charge by writing our nearest office. United Grain Growers Limited, St. Boniface, Calgary, Edmonton, Moose Jaw.

FOR GOOD RESULTS TRY STAPLES & PER- guson, Union Stock Yards, St. Boniface, with your next shipment. Farmers' co-operative shipments carefully handled. Veterinary health certificate attached to bill of lading means dollars to you.

SEED GRAIN

SEED TESTING

Guide subscribers who wish to have seed grain tested for purity, grading and germination may have same done free of charge, by sending samples to Dominion Government Seed Branch at Winnipeg or Calgary. Ten tests will be made free for any one farmer, after which a nominal fee is charged.

CHOICE SEED GRAIN—MITCHELL'S IMP- roved Marquis excels in yield and quality. Seed closely related to my Challenge Cup, also championship winning grain at Chicago in strongest competition yet known, according to experts present. Will spare limited quantity \$6.00 bushel. Dark color, pure and clean. Neither time or expense spared to secure best possible. Better seed not being offered. Mitchell, Truax Phone, Dahinda, Sask.

SEED OATS—EVERYONE OFFERING SEED claims it to be more or less clean, but we have big, strong, tested seed oats, practically absolutely free from wild oats and all other weed seeds, and will let you be the judge and ship subject to your approval. We are improving our stocks every year. Catalog free. Harris McFayden Seed Company Limited, Farm Seed Specialists, Winnipeg.

SEED BOOK NOW READY FOR MAILING. The Guide has published a SEED BOOK which deals in a comprehensive manner with the whole question of improved seed. If you are interested in raising more bushels of better quality write for a copy of this book. A postcard will bring it. The Grain Growers' Guide, Winnipeg.

SELLING—PURE RED BOBS WHEAT; SEED obtained direct from Seager Wheeler and The Guide. Grown under the rules of the Seed Growers Association. Price, \$10.50 per bushel, bags included. Satisfaction guaranteed or money refunded. W. R. Brockington, Sunnyside Seed Farm, Elva, Man.

FOR SALE—NEW INDUSTRIAL OATS, ORIGI- nated by Steele Briggs Co. Malster barley, winter rye, silver hull buckwheat, hog millet, timothy seed, Early Bovee seed potatoes and some good white potatoes at \$2.00 a bushel. Send for samples and prices to Oliver Eby, Guernsey, Sask.

SEED FLAX—BIG MONEY IN FLAX. MANY farmers have more than paid for their land with one crop. Investigate our perfectly-cleaned seed, guaranteed free from mustard. Free catalog. Harris McFayden Seed Company Limited, Farm Seed Specialists, Winnipeg.

SEED FLAX—300 BUSHELS OF THE VERY best, grown on breaking, \$6.00 per bushel. Also 200 bushels seed wheat, grown from registered Seager Wheeler Marquis, \$3.50 per bushel. Both cleaned ready for sowing. John Horton, Katrine, Man.

FOR SALE—SWEET CLOVER SEED, WHITE Bloom, hulled or unhulled. \$20 per bushel f.o.b. Sinaluta. Sufficient extra weight given if unhulled. W. G. Hill & Sons, Sinaluta, Sask.

BIG SNAP IN PURE RED BOBS WHEAT— Wheeler's registered 1918 stock. \$5.00 per bushel; two-bushel sack, \$10. Grown in dry belt. Sample damaged by drought. W. W. Moloney, Kaleida, Man.

FOR SALE—500 BUSHELS MARQUIS WHEAT, clean, grown on breaking, \$3.00 per bushel; also car of good seed barley, Mensury \$2.00 per bushel. Samples on request. T. B. Bone, Innisfail, Alta.

SELLING—CAR LOAD FINEST MARQUIS wheat, dark, grown on breaking, from clean seed. Germination 97%, weight 67 pounds. None better. \$3.00. J. E. Gustus, Calgary, Alta.

SELLING—300 BUSHELS LEADER OATS, OFF breaking, second generation, 98% germination. Good, clean seed, \$2.00 bushel, bags included. G. W. Kurts, Goodwater, Sask.

SEED GRAIN

SELLING—600 BUSHELS KITCHENER wheat, \$3.50; 400 bushels O.A.C. barley, \$2.25, allowing half-cost sacks on 20 bushels wheat or 40 bushels barley. Can ship via Canadian Pacific or Canadian National Railway. Oliver English, Peebles, Sask.

LEADER OATS, GOVERNMENT GERMINA- tion test, 99% six days, absolutely clean, from breaking. \$1.65 bagged. Car lots. Write for prices. Kitchener wheat, pure and cleaned, \$4.00 bagged. Vincent Baldoock, Luseland, Sask.

FOR SALE—TWO CARS SEED OATS, ONE Banner, germinating 94%; one Abundance, germinating 96%. Each contains approximately half of one per cent. wild oats. Also three cars feed oats. M. H. Feeley, Prosser, Sask.

PREMOST FLAX, GERMINATION TEST, Dominion Government seed laboratory, 100% four days, \$6.00 bushel, bags extra; sample Nadon Maxwell Scott, Sask.

FOR SALE—5,000 BUSHELS ABUNDANCE seed oats, grown on new land. Sample free. \$1.00 bushel, Humboldt. John A. Langenhoff, Fulda, Sask.

WESTERN RYE GRASS SEED, GOVERNMENT germination and purity test, cleaned and including bags, \$21 per 100 lbs. G. B. Seabrook, Plunkett, Sask.

700 BUSHELS KITCHENER WHEAT, RE- cleaned, grown on breaking. Seed obtained from Guide and McKenzie's 1918; \$4.00 bushel, bags extra, f.o.b. McCready Bros., Erskine, Alta.

LEADER OATS—CLEANED, SEED TEST 99%, \$1.50 bushel. O.A.C. No. 21 barley, cleaned, \$1.50 bushel. Bags extra. R. A. Allan, Dalroy, Alta.

SELLING—WESTERN RYE GRASS SEED. Free from noxious weeds. \$20 per cwt.; cleaned and sacked. Wilfred Jones, Invermay, Sask.

SELLING BY CAR LOAD—VICTORY OATS, Clean, grown on breaking, enormous yield, great drought resister. \$1.15 bushel. Seeds. Box 368, Shaunavon, Sask.

MARQUIS WHEAT—GROWN ON BREAKING from registered seed; purchased 1919 from Harris McFayden. \$3.75 bushel; cleaned. Bags included. R. A. Graham, Govan, Sask.

SELLING—MACARONI SEED WHEAT, RUST resistant. Stands more drought than any other variety. \$2.45. Bags extra. I. Sonastelle, Duval, Sask.

SELLING—KITCHENER WHEAT, SEAGER Wheeler stock. Car lots, \$3.00 bushel; small lots, \$3.50. Sacks extra. F.O.B. Wilcox, Sask. A. F. Humbert

FOR SALE—100 BUSHELS RED BOBS WHEAT. Secured foundation stock from Grain Growers' Guide in 1918; \$7.00 bushel, sacks included. Mrs. W. Ransom, Mountsides, Man.

FOR SALE—KITCHENER WHEAT, ABSO- lutely pure and clean, per bushel, \$4.00, bags free. Fogelvik Farm, Alsask, Sask. Andrew Anderson.

SELLING—PURE MARQUIS SEED WHEAT, grown from registered seed on breaking, grade two, \$3.00 per bushel. A. McMillan, Dubuc, Sask.

FOR SALE—500 BUSHELS FLAX, \$6.00 BUS. sacked, 95% germination; 10,000 rhubarb roots, \$1.25 dozen. David Mulholland, Barons, Alta.

SELLING—400 BUSHELS LEADER OATS, From Harris McFayden seed. \$1.75 bushel. Luetkar, Shaunavon.

RED BOBS WHEAT, \$7.00 PER BUSHEL, re-cleaned and bagged. Robert Clark, Speers, Sask.

BROME GRASS SEED, CLEANED AND BAG- ged, \$25 hundred. Sample on request. Wm. Baker, Wilhelms Farm, Graysville, Man.

BUYER AND SELLER OF GRASS SEEDS, seed corn and seed grains. Beckman's Seed Farm, Kokato, Minn.

FOR SALE—ONE CAR LOAD OF 1,350 BUS. Marquis seed wheat, price \$3.00 per bushel, f.o.b. Empress, Alta. Henry G. Cole, Masonville, Sask.

SELLING—200 BUSHELS MARQUIS WHEAT, clean, grown on breaking, \$3.00 per bushel, bags extra. H. Sawyer, Beulah, Man.

SELLING—CLEANED SEED FLAX, \$6.00 PER bushel, bags included. D. M. Robertson, Lawson, Sask.

SELLING—KITCHENER WHEAT, HIGH GER- mination, clean, \$3.25 bushel, sacks extra. Arthur Bozson, Bethune, Sask.

RED BOBS WHEAT—One bushel, \$10; two- bushel bag, \$18. Grown from Seager Wheeler seed. Wm. J. Mathieson, Tuxford, Sask.

KITCHENER WHEAT—SACKED. \$5.00 PER bushel, f.o.b. Valor. J. A. Smith, Stonehenge, Sask.

FOR SALE—WESTERN RYE GRASS SEED. \$20 per hundred. S. Richmond, Leross, Sask.

200 BUSHELS, CLEANED, PURE MARQUIS wheat from registered seed. Bedson Bros., Fenner, Alta.

WHITE BANNER OATS, PURE, YIELDED 115 bushels per acre. Send for sample and price. Robert McAllister, Myrtle Creek, Alta.

FOR SALE—KITCHENER WHEAT, CLEANED and free from weeds. Price \$3.50 bushel, sacks included. W. Lowe, Anisk, Alta.

SELLING—RED BOBS WHEAT GROWN FROM seed obtained from Guide, \$8.00 bushel. Irwin McLeod, Norgate, Man.

WANTED—SPRING RYE FREE FROM WILD oats. Lester Hammond, Maple Creek, Sask.

KITCHENER WHEAT—\$3.50 BUSHEL, BAGG- ed. Wm. Hanson, Tessier, Sask.

NORWAY KING OATS AT \$2.00. L. O. WAL- strom, Young, Sask.

WANTED—CAR LOAD GOLD RAIN OATS FOR seed. H. S. Simpson, Okotoks, Alberta.

SEED GRAIN—Continued

- SELLING—PURE O.A.C. AND MENSURY** barley, grown on new land. Guaranteed free from noxious weeds. Viewfield Farms, Oak Bluff, Man. 6-3
- FOR SALE—GENUINE GRIMM'S ALFALFA** seed, 90c. per lb.; also selected Dakota alfalfa seed, 60c. per lb., both Saskatchewan grown. A. J. Loveridge, Grenfell, Sask. 6-2
- SELLING—CAR BANNER SEED OATS, GOVERNMENT** test, 95% six days. Threshed dry, \$1.10, f.o.b. Ryerson, Sask. Sample free. Thos. Renwick, Box 83, Maryfield, Sask. 6-2
- SELLING—CLEAN FLAX SEED, \$5.50 PER** bushel, bags extra. Also fall rye, grown from the sweepstakes rye of 1917. Price on application. John F. Strachan, Minnola, Man. 6-2
- FOR SALE—A FEW HUNDRED BUSHELS OF** good 60-day oats, \$1.00 bushel. O. S. Ganong, Sturgis, Sask. 6-4
- 400 BUSHELS MARQUIS WHEAT, GROWN** from pure stock, cleaned, \$3.00 bushel, bags extra. Ben Avery, Lauder, Man. 6-2
- SELLING—1,400 BUSHELS MARQUIS SEED** wheat. Adolph Johnson, Fillmore, Sask. 6-2
- SEED OATS FOR SALE—BY U.F.A. CAMROSE,** Alberta. Write secretary for particulars. 6-2
- SELLING—FLAX, CLEANED, \$5.25 BUSHEL,** bags free. W. J. Schouten, Raymore, Sask. 6-2

FARM LANDS

- 344-ACRE MIDWEST FARM, \$5,000, ON STATE** road. Good all times of year, mile stores, etc., motor bus passes farm, near RR center, only eight miles large city. As good soil as lies out of doors; well-drained productive tillage, stream-watered pasture for large herd; wood, timber, fruit. 10-room house, steam-heat, view over beautiful river which farm borders, house could not be replaced for \$7,000; large barns, etc. To settle quickly, low price, \$5,000 is made, easy terms. Where can you equal this exceptional bargain? Details, page 73, Strout's Farm Bargains, 23 states; copy free. E. A. Strout Farm Agency, 208 B.G., Plymouth Building, Minneapolis, Minn.
- STOCKMEN, 160-ACRE HAY FARM, CENTRAL** Alberta. The assurance of a feed supply at all times. The 1919 crop sold to a large rancher for one-quarter the list price. If you purchase hay at all you are interested. Situated one-half mile from divisional point on Grand Trunk Railway where cars are always available and handling costs reduced to a minimum. Yield estimated at 130 tons annually. Your own judgment will convince you that this will be a much-sought for investment in the next 10 years. Full particulars, H. A. Chapman, Lacombe, Alta.
- LUCKY LAKE, 640 ACRES, SECTION 27, TOWN-** ship 23, Range 8, West Third Meridian, 3½ miles from good town, very best wheat land, chocolate loam, clay subsoil, 160 acres new breaking, disced ready for crop; 320 acres breaking, stubble, small buildings. Price \$40 acre, not less than \$5,000 cash, balance terms to suit at 7%. Owner Geo. Kellett, 316 Pender St. Vancouver, B.C. 6-2
- FOR SALE—WE HAVE FARM LANDS FOR** sale, cheap, in Manitoba, Saskatchewan and Alberta. Can satisfy the smallest prospective buyer. In some instances the sum of \$200 to \$300 will cover the first year's payment. Write us for particulars, stating district desired. Will gladly supply full details. The Royal Trust Company, 436 Main Street, Winnipeg. 6-2
- FOR SALE—160 ACRES NEAR FLEET, ALTA** 60 acres under cultivation, 28 acres summer-fallow, good serviceable buildings, house, good new barn, driving shed and granary, two wells, fenced around the outside and cross fenced. \$30 per acre on terms, or discount for cash. H. Goudie, Fleet, Alta. 5-2
- FOR SALE—FIRST-CLASS IMPROVED HALF-** section, 300 acres under cultivation, 125 acres good summerfallow. Fair buildings, well, telephone; three miles from Bounty. Will sell farm, stock and implements for \$65 per acre. John E. Weir, Box 8, Bounty, Sask. 3-4
- 320 ACRES OF FARM LAND IN MIXED FARM-** ing district, seven miles from Duck Lake, 80 acres broken, all fenced. House and stable. Good hay slough. Price \$4,400. Terms \$1,000 cash, balance to suit purchaser. For further information write Bank of Montreal, Duck Lake, Sask. 6-3
- SOURIS—1,120 ACRES, ALMOST JOINS** town, all cultivated; good buildings; no better farming conditions in Western Canada. \$35, terms. Winnipeg—25 miles out. 550 acres, soil unbeatable; fair buildings, shelter belt; abundance water, four miles elevator. \$50; terms. Madill, Huffman Co. Winnipeg. 6-2
- FOR SALE—800 ACRES, 140 ACRES SUMMER-** fallow, 360 acres stubble, balance prairie. Good buildings, telephone, abundance good water. Two-and-a-half miles from siding. \$35 per acre, \$5,000 cash. Wocherspoon & Sons, Melville, Sask. 6-4
- GOOD CHANCE FOR GOOD MAN IN SURE** crop district, 480 acres unimproved, two miles from good town, good roads, 200 acres open, plenty fuel, some meadow, near river; rich black loam; 10 year; to pay. Is a real farm. Swift, Bowman River, Man. 6-3
- FOR SALE—480 ACRES, FIVE MILES FROM** good town, 130 acres summerfallow, 45 acres stubble, balance prairie. Good buildings, telephone and well. \$35 per acre, \$3,000 cash. Wocherspoon & Sons, Melville, Sask. 6-4
- SELLING—HALF-SECTION, THREE-AND-A-** half miles from Guernsey. All arable, 150 acres broken, 80 new breaking; 70 one crop off. Small house and stable. \$25 acre; \$1,000 cash, balance half crop. Mrs. McMeans, Guernsey, Sask. 6-2
- WHEAT, OATS, BARLEY AND FLAX—SAS-** katchewan leads all other provinces. Write for our list improved and unimproved farms for sale in Last Mountain Valley, maps, etc. T. F. Thompson Agencies, Nokomis, Sask. 6-4
- 480 ACRES—NAMAQ DISTRICT—11 MILES** from Edmonton, 275 cultivated, good buildings, good fences, best soil; Namaq district foremost in Western Canada. Box 130, Carndiff, Alta. 5-4
- SELL YOUR PROPERTY QUICKLY FOR CASH,** no matter where located. Particulars free. Real Estate Salesman Co., Dept. 18, Lincoln, Nebr. 3-4
- TWELVE FRUIT FARMS FOR SALE—HATZIC** district. T. Catherwood, Hatzic, B.C. 5-2

FARM LANDS—Continued

- 320 ACRES STOCK FARM, EVERYTHING** necessary, plenty free range; choice wheat land. Price very low. Write for further details. Address Box 20, Dolcy, Alberta.
- I HAVE FOR SALE A GOOD HALF-SECTION,** four miles from Fleet, Alberta. Good buildings. Write for particulars. J. W. Heisey, Castor, Alberta. 6-2
- I HAVE CASH BUYERS FOR SALEABLE FARMS** Will deal with owners only. Give description, location and cash price. James P. White, New Franklin, Mo. 4-8
- EXCHANGE—QUARTER LAND TO TRADE** for big Rumely or Aultman tractor. Must be in good condition. P. Ramsey, Dorence, Alta. 5-2
- FARMS FOR SALE—640 AND 480-ACRE** equipped farms, good soil and water, central Manitoba. Owner: Box 215, Winnipeg. 5-2
- WANTED—TO HEAR FROM OWNERS OF** lands for sale, any district. Blain-Wents Land Company, Saskatoon. 4-4
- SHAWNEE, OKLAHOMA, CENTRE OF A** great farming country. Write for information, Board of Commerce, Shawnee, Oklahoma.
- WOULD EXCHANGE CITY PROPERTY** Equity \$900, for farm machinery or stock. Apply 296 Toronto St., Winnipeg.
- IF YOU WANT TO SELL OR EXCHANGE YOUR** property, write me. John J. Black, 47 St., Chippewa Falls, Wis.
- WANTED—HEAR FROM OWNER FARM OR** unimproved land for sale. O. K. Hawley, Baldwin, Wisconsin.

FARM MACHINERY

- FOR SALE—NICHOLS & SHEPPARD THRESH-** ing outfit. 25-85 double cylinder steam engine with plow, platform, water tanks, coal bunkers 36 in. x 60 in. separator, run 75 days, tanks, belts cable; everything complete. Price \$4,500. Carmichael Bros., Hallboro, Man. 5-2
- SELLING—10-20 TITAN TRACTOR WITH EX-** tension rims, 12-foot International cultivator, three-furrow Hamilton tractor plow. Engine sold separately if desired. Outfit used season of 1919. Guaranteed first-class condition. G. H. Doney, Thornhill, Man. 4-2
- FOR SALE—30-60 HART-PARR GAS ENGINE,** five-bottom Cockshutt plow, stubble and breaker bottoms, extra shears. Red River Special separator, 28 x 40; Universal self feeder and all attachments. Used one season. \$4,000 cash. Box 5, Piapot, Sask. 5-4
- FOR SALE—ONE COMBINATION THRESHING** outfit, 10 H.P. International engine and 20-in. new Racine separator. For further particulars write Norman, Francis, Box 20, Portage La Prairie, Man. 4-4
- FOR SALE—20-H.P. INTERNATIONAL TRAC-** tor, type C, and Goodison 28-42 separator complete. Threshed about 160,000 bushels. Price \$1,500. 10% off for cash. Geo. Myers, Belmont, Man. 4-3
- FOR SALE—A SPLENDID THRESHING OUT-** fit, in good shape; 10-20 International single cylinder tractor, and 24-40 New Racine separator, complete. A snap at \$1,200 cash. Apply Box 10, Lauder, Man.
- FOR SALE OR EXCHANGE—20-40 CASE GAS** tractor, good repair. Sell cheap for cash or will sell on terms. Would exchange for horses or cattle or both. Francis Stangier, Strathmore, Alta. 4-4
- FOR SALE—ONE SIX-FURROW COCKSHUTT** engine gang, fitted with six stubble and five breaker bottoms. Also one Goodison separator, 28 in. cylinder; all in first class running order. C. Bily, Millwood, Man. 5-2
- FARMERS SAVE THAT SHORT GRAIN—** Equip your binder with my canvas-control clutch, and you can cut and save the shortest crop. (Patent applied for.) For full particulars apply Box 8, Neville, Sask.
- WILL TRADE HORSES FOR 16-30 RUMELY** oil pull engine or will trade 30-60 plowing and threshing outfit complete, in running order, for 16-30 outfit. Give particulars. O. H. Zeller, Pennant, Sask. 6-2
- FOR SALE—COMPLETE THRESHING OUT-** fit, in good running order; Sawyer-Massey Engine, 32-H.P. used 40 days; Nichols & Sheppard separator 36 x 56. A bargain. Write Jas. Ramsdell, Kibbey, Sask. 6-2
- A LARGE THRESHING OUTFIT FOR \$850;** 15 horse Case Steamer and 32 by 54 Case separator with blower. A snap. Prairie Stock Farm, Battleford, Sask.
- FOR SALE—SMITH FORM-A-TRACTOR, TWO** kerosene burners for Ford, sixteen-inch sulky plow, Cockshutt democrat; all new; sacrifice prices. Robt. Border, Ebenezer, Sask. 5-2
- 20-40 CASE TRACTOR WITH FIVE-FURROW** Cockshutt, plowed 450 acres. Exchange for cattle or cash; owner leaving Canada. Write Henry Cole, Maisonville, Sask. 2-6
- FOR SALE—ONE SIX-FURROW VERITY EN-** gine gang plow with breaker bottoms only. \$350, f.o.b. De Winton, Alberta. Broke only 500 acres. Wm. Bryce, De Winton, Alta.
- SELLING—STEAM THRESHING OUTFIT,** Nichols & Sheppard, engine 25-H.P. double cylinder; Reeves separator 40 x 63, run three falls. Thos. Benson, Raymore, Sask. 4-4
- SELLING—P. & O. ENGINE GANG, EIGHT** stubble, six breaker, extra shears, \$350. Forkner cultivator, 11 foot, \$150. Both used but little. E. P. St. John, Kibbey, Sask. 5-2
- FOR SALE—TEN-BOTTOM COCKSHUTT** breaker engine gang in first class condition. \$300 cash. Wm. Cates, Cabri, Sask. 5-2
- FOR SALE—12-25 WATERLOO BOY TRACTOR,** only plowed 75 acres, \$800 cash. Edgar Durham, Belmont, Man.
- SELLING—CHOPPING OUTFIT, 7-H.P. MANI-** toba engine and eight-inch Galloway grinder, \$175. H. M. Murray, Beverley, Sask. 6-2

FARM MACHINERY—Continued

- SELLING—ONE DIAMOND GANG PLOW,** lever lift; good repair. New Shares and extras. \$25. R. Moore, Box 73, Douglas, Man.
- WANTED—24-INCH STEEL BREAKER.** State price. D. W. Chambers, Halcourt, Alta.
- WANTED TO BUY—JUMBO BREAKER. AD-** dress, A. R. Berry, Grandview, Man. 5-2
- SELLING—ROBERT BELL STEAM ENGINE,** 26 h.p., and Buffalo Pitts separator, 34 x 56, Ruth feeder, caboose and tank, \$3,500. Also 30 x 60 Mogul oil plowing tractor with extensions and oil tank, \$2,250. All in first class condition. Will consider exchange for horses, Percherons preferred. Jas. A. Connell, R.R. No. 1, Neepawa, Man. 6-2
- FOR SALE OR EXCHANGE—32-50 DAISY** separator and 20 h.p. Sawyer-Massey steam portable engine. Always been under cover. Will exchange for a good combination outfit. Herbert Aselstine, Manson, Man.
- FOR SALE—25-75 CASE STEAM PLOWING** tractor, first class order. Also Rumely 40-64 separator, first class condition. For information, Axial Bros., Wynyard, Sask. 6-2
- SIX-FURROW, 14-INCH JOHN DEERE EN-** gine gang, complete, \$450, f.o.b. Shanawan. Communicate with W. M. Dryden, Shanawan, Man.
- FOR SALE—25-45 TWIN CITY TRACTOR AND** five-furrow Oliver gang, stubble bottoms. All in good shape. Jacob Hansen, Bassano, Alta. 6-2
- WILL SELL OR EXCHANGE A 12-25 MOGUL** tractor for oats, hay or sheaves. Hoffmann Bros., Maple Creek, Sask. 6-2
- WANTED—24-INCH COCKSHUTT SCRUB** plow. State price. Donald McKenzie, Neelin, Man. 6-2
- WILL SELL OR EXCHANGE CASE 110 STEAM** plowing outfit in Saskatchewan. Write Robert Carmichael, Victor, Montana. 6-2
- FOR SALE—SIX-FURROW VERITY SELF-** leveling plow. Plowed only 125 acres. \$300 cash takes it. Box 12, Winkler, Man.
- WANTED—FORDSON TRACTOR, FIRST-** class condition. State price. H. Gorrell, Oxbow, Sask.
- FOR SALE OR TRADE—30-60 TITAN KERO-** sene tractor, eight-furrow plow, nearly new, cheap. Address, Box 133, Wilkie, Sask. 5-3
- WANTED—EIGHT OR 10-BOTTOM ENGINE** gang. Write J. Bartlett, Friedenstal, Alta.
- 30-60 HART-PARR KEROSENE ENGINE—A1** shape. A. L. Watson, Brough, Sask. 6-4

SITUATIONS

- WANTED BY END OF MARCH—MARRIED** man to work on mixed farm. House, milk, fuel, vegetables provided. State wages, G. P. Burns, Blackfalds, Alberta. 5-4
- EXPERIENCED FARMER, MARRIED, WANTS** position on farm as manager, or would rent on shares if everything was furnished. State wages or terms in first letter. Apply Box 74, Killarney, Man.
- WANTED—EXPERIENCED FARMER, MAR-** ried, work fully-equipped half-section, share basis; under owner's direction. Guaranteed wage. Cowan, Waldeck, Sask.
- WANTED—WOMAN TO TAKE FULL CHARGE** as housekeeper on farm. State wages. Apply Wm. Martin, Wiggins, Sask.
- WANTED—POSITION IN STORE, BY YOUNG,** trustworthy girl. Address: T. Farion, Shortdale, Man. 6-4

HAY AND FEED

- THREE CARS NO. 1 WHEAT STRAW, PRES-** sed, ready for shipment. Apply J. N. Morris, Nokomis, Sask. Box 158. 5-2
- FOR SALE—THREE CARS BALED UPLAND** hay. A. C. Portway, Hayter, Alta. 5-2
- FOR SALE—GREEN OAT SHEAVES, CON-** taining good oats. Henri Vicario, Edam, Sask. 4-4
- HAY FOR SALE—A FEW CARS FOR IMMEDI-** ate delivery. \$26 per ton. A. E. Johnson, Glenboro, Man. 6-2
- FEED AND SEED OATS WANTED—SEVERAL** cars each week; rush samples and prices. Jensen Lumber Co., Prelate, Sask. 6-4
- BALED WHEAT STRAW—\$10 PER TON.** J. Wookey, Guernsey, Sask.

LUMBER, FENCE POSTS, ETC.

- FENCE POSTS—LUMBER, CEMENT, PLAS-** ter, fence wire and other supplies at bottom wholesale prices direct from factory. McCollum Lumber and Supply Co., Union Trust Building, Winnipeg, Man. 2-4
- FENCE POSTS—SPLIT CEDAR, ROUND TAM-** arac and willow fence posts. Write for carload prices, delivered. Enterprise Lumber Co., Edmonton, Alberta.
- CUT OUT THE MIDDLE-MAN—ORDER YOUR** green tamarac fence posts from Adolph Benesh, Jankins, Alta. 4-3
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- FETHERSTONAUH & CO., THE OLD** established firm. Patents everywhere. Head Office, Royal Bank Bldg., Toronto; Ottawa Office, 5 Elgin St. Offices throughout Canada. Booklet free. 38-4
- HUDSON, ORMOND, SPICE & SYMINGTON,** barristers, solicitors, etc., 303-7 Merchants Bank Building, Winnipeg, Canada. Phones, Main 4374-5-6. 15-4
- CASE, EGERTON R., 10 ADELAIDE EAST,** Toronto. Patents Canadian, foreign. Booklet free. 4-4
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GENERAL MISCELLANEOUS

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- SIX 10-LB. PAILS CLOVER HONEY, \$17.** Wilber Swayze, Dunnville, Ont. 4-3

The Printed Word

Continued from page 24

copies. This would give a production of from 40,000 to 50,000 books per annum. It is not likely that this quantity will increase very much for some years to come, or at least until the population of Canada is many times what it is today.

Book Importations

Canada's book importations have been principally from the United States of late years, both on account of the propinquity of the market and the fact that the war crippled the British publishing industry, while transatlantic shipments were difficult. There is thus the spectacle of a steady increase in importations from the United States and a decrease, up to 1919, in imports, from Great Britain. For the fiscal year, ending March 31, 1919, Canada imported books to the value of \$581,228 from Great Britain and \$2,571,236 from the United States. For the first six months of the present fiscal year, or up to September 30, 1919, importations from Great Britain were valued at \$314,952, and from the United States at \$1,578,886. An analysis of the returns shows that only in the item of bibles, hymn and prayer books do importations from Great Britain continue to exceed those from the United States. In all other classes of books the United States leads by a considerable margin.

There is yet another product of the printing office which bulks largely in output, and that is that miscellaneous mass of material known as advertising matter. This includes catalogs, booklets, folders, etc. Next to the production of newspapers, the manufacture of catalogs ranks highest in the list of printing-shop products and a whole chapter could be written on the preparation and publication of the immense mail order catalogs which are now such a feature of the domestic life of the people. This work forms a business in itself and gives employment to a small army of workers. Naturally a considerable volume of this kind of material is sent into Canada from the United States. For the last fiscal year importations exceeded two million pounds in weight and \$594,949 in value, while for the first half of the present year both these figures are considerably exceeded.

The National Union of Societies for Equal Citizenship is an organization in Great Britain to encourage women to enter parliament. Women in Canada are eligible for legislatures and parliament. Perhaps next election may see Canadian women in the new parliament.



Find your way anywhere in the dark with this swell flashlight. It has a nickel case, polished like a mirror, genuine Tungsten bulb and the famous Ever-Ready Dry Battery. Just touch a button and you get a full flood of brilliant light. No money to pay—we give it to you for selling only \$3.50 worth of our big, beautiful Calendars at 10 cents each; lovely Easter and other postcards at six for 10 cents; and sure-growing flower and vegetable seeds at 10 cents a packet. **IT'S THREE TIMES AS EASY TO SELL THREE KINDS OF GOODS.** Send no money—we trust you. Mail your order NOW. **THE GOLD MEDAL CO.** (22nd year in business), Dept. G.G.3T., 311 Jarvis Street, Toronto.

BOYS! GIRLS! WIN THIS FINE WRIST WATCH

Genuine Swiss movement, in handsome case. On the lady's style (as illustrated) the watch is fitted in a wrist band of lovely, soft leather. For boys, the watch is mounted in a handsome leather protector, just like the soldiers use.



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If you like, you can take it out of the protector and wear it on a chain or a fob. Only a limited quantity left. Earn one by selling only \$7.50 worth of our big, beautiful Calendars at 10 cents each; lovely Easter and other postcards at six for 10 cents; and sure-growing flower and vegetable seeds at 10 cents a packet. **IT'S THREE TIMES AS EASY TO SELL THREE KINDS OF GOODS.** Send no money—we trust you. Mail your order NOW. **The Gold Medal Company** (22nd year in business), Dept. G.G.42T., 311 Jarvis Street Toronto, Ont.

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If You Breed Live-Stock AVOID THESE 5 MISTAKES



Almost all live-stock losses are due directly to mistakes. You may be making mistakes right now and not know of it. Here are just a few of the most common ones that it will pay you to avoid.

Never feed a pregnant sow straight corn. Corn is a fat producing food, lacking in tissue-forming elements. A sow carrying pigs is not laying on fat but building new tissue in the form of her unborn pigs.

Don't sell aborting cows if they are good individuals. If the cow is at all valuable, keep her, for after a cow has aborted two or three times she usually becomes immune.

Never remove retained afterbirth by force. This tears the lining membranes of the uterus, allowing germs to get into the blood, and causing blood poisoning.

Milk from herds in which abortion is present should never be fed to pregnant sows. It will cause abortion in the sow. If, however, it has first been heated to the boiling point, it can be given to the sow with safety.

Never allow anyone to stay within sight of a mare that shows signs of foaling. Animal has a natural aversion to anyone being present during delivery. Only give the mare assistance when she has shown that she cannot drop the foal by herself.

Using Hard-Won Experience of Experts

There are hundreds of other mistakes made every day that eat right into live-stock profits. There are two ways of avoiding these mistakes. One is by making them yourself, and learning your lesson through actual losses. The other is thru home-study course of the National School of Animal Breeding, the course that has taught hundreds how to prevent breeding losses, and increase their profits.

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Specifications of 30-18

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and has 11 square feet of traction surface all the time, and traction is what makes a tractor. Compare this traction surface with that of a round-wheel tractor.

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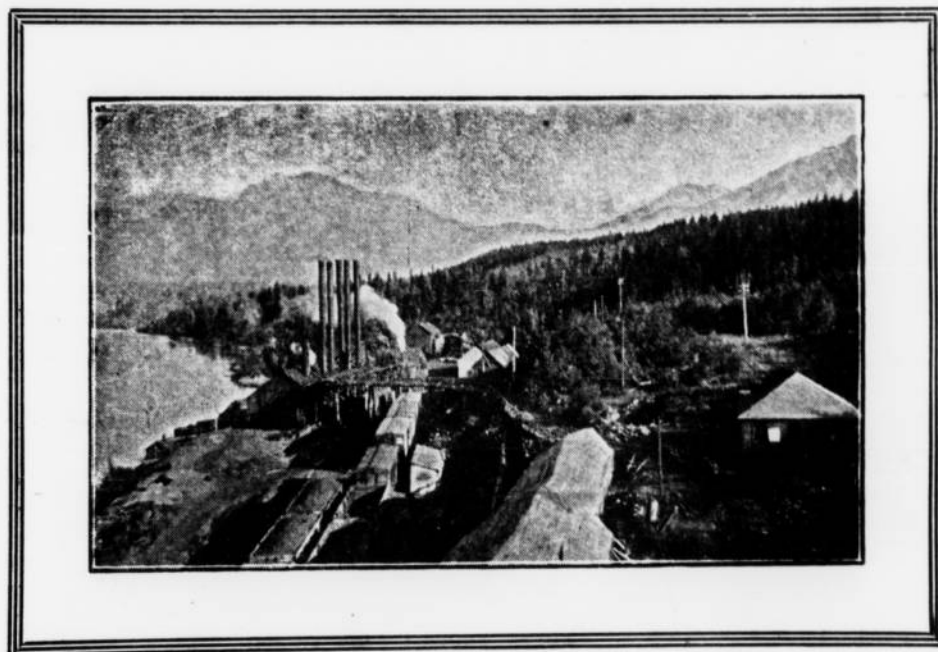
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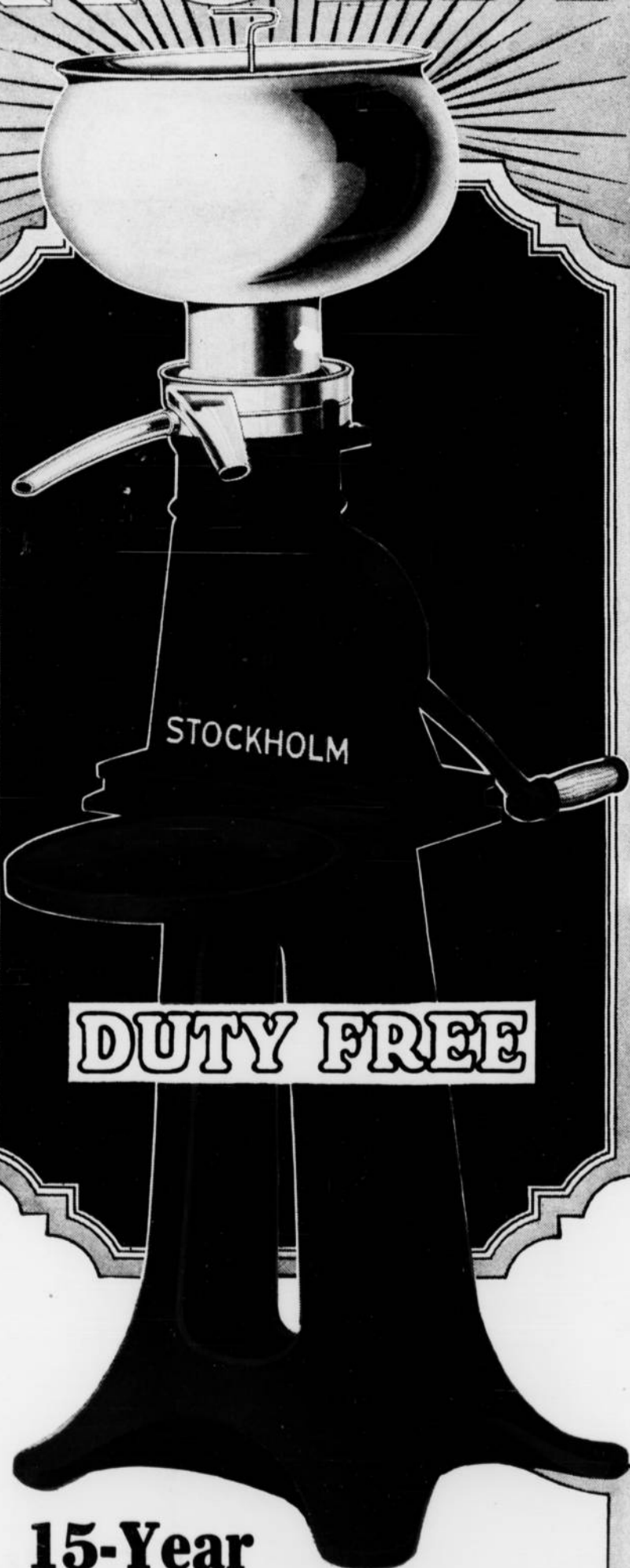
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